

**TITLE 380. OKLAHOMA DEPARTMENT OF LABOR
CHAPTER 50. ABATEMENT OF FRIABLE ASBESTOS MATERIALS RULES
SUBCHAPTER 1. GENERAL PROVISIONS**

380:50-1-2. Definitions

The following words and terms, when used in this chapter, shall have the following meanings, unless the context clearly indicates otherwise.

"**Abatement crew**" means the workers on an asbestos abatement project at any given time.

"**ACBM**" means asbestos-containing building material.

"**ACM**" means asbestos-containing material.

"**Accredited or accreditation**" means, when referring to a person or a laboratory, that such a person or laboratory has met the training, experience, and/or quality control requirements to perform work in accordance with **AHERA**.

"**Aggressive method**" means removal or disturbance of building material by sanding, abrading, grinding or other method that breaks, crumbles, or disintegrates intact ACM.

"**AHERA**" means the Asbestos Hazard Emergency Response Act, 15 U.S.C. Chapter 53, Subchapter II, Sections 2641 et seq., as amended, and 40 CFR Chapter I, Subchapter R, Part 763, Subpart E - Asbestos-Containing Materials in Schools, as amended, including appendices.

"**AHERA abatement project designer**" means a person who develops plans and specifications for the abatement of asbestos. For the purposes of this Chapter, abatement project designers will be considered to be a category of contractors.

"**AHERA inspector**" means a person trained to do on-site inspections for local education authorities to comply with **AHERA**. For purposes of this Chapter, **AHERA** inspectors will be considered to be a category of asbestos workers.

"**AHERA management planner**" means a person who develops management plans for local education authorities to comply with **AHERA**. For the purposes of this Chapter, management planners will be considered a category of contractors.

"**AIHA**" means the American Industrial Hygiene Association.

"**Amended water**" means water to which surfactant (wetting agent) has been added to increase the ability of the liquid to penetrate ACM.

"**Asbestos**" means ~~chrysolite chrysotile, amosite, crocidolite, tremolite asbestos, anthophyllite asbestos, and actinolite asbestos, in a fibrous form, and as determined by polarized light microscopy and any of these minerals that has been chemically treated and/or altered.~~ For purposes of this Chapter, "asbestos" includes presumed asbestos containing material (PACM).

"**Asbestos-containing material (ACM)**" ~~means any material that contains asbestos of one percent (1%) or more, by weight, except that dust samples analyzed as an indicator of asbestos contamination may be meaningful if asbestos is detected in any quantity~~ means any material containing more than one percent (1%) asbestos.

"**Asbestos-containing building material (ACBM)**" means any friable ACM that is in or on interior structural members or other parts of a school, or public or commercial building facility.

"**Asbestos fiber**" means any fiber of ~~chrysolite chrysotile, amosite, crocidolite, tremolite, anthophyllite, and actinolite~~ five micrometers or longer, and with an aspect ratio of greater than

three-to-one.

"Asbestos hauler" means a person who transports asbestos containing materials from abatement projects for hire. For purposes of this Chapter, asbestos haulers will be considered to be asbestos abatement contractors, and their employees to be asbestos abatement workers, and shall be required to be licensed as such.

"Category I nonfriable asbestos-containing material (ACM)" means asbestos-containing packings, gaskets, resilient floor covering, and asphalt roofing products containing more than one percent (1%) asbestos by weight as determined using the method specified in Appendix E, Subpart E, 40 CFR Part 763, Section 1, Polarized Light Microscopy.

"Category II nonfriable ACM" means any material, excluding Category I non-friable ACM, containing more than one percent (1%) asbestos by weight as determined using the method specified in Appendix E, Subpart E, 40 CFR Part 763, Section 1, Polarized Light Microscopy that, when dry cannot be crumbled, pulverized, or reduced to powder by hand pressure.

"Class III asbestos work" means repair and maintenance operations where ACM, including TSI and surfacing ACM and PACM, is likely to be disturbed. For the purposes of this Chapter, Class III asbestos work shall be considered the same as small scale, short duration (SSSD) and O&M work activities.

"Clean room" means an asbestos-free section of a decontamination facility which is intended for workers to change from street clothes to protective clothing prior to asbestos abatement activities.

"Closely resemble" means that the major workplace conditions which have contributed to the level of historic asbestos exposure, are no more protective than conditions of the current workplace.

"Commissioner", as used herein, means the Commissioner of Labor, or employees of the Oklahoma State Department of Labor appointed to act on behalf of the Commissioner.

"Competent person" means, in addition to the definition in 29 CFR 1926.32(f), one who is capable of identifying existing asbestos hazards in the workplace and selecting the appropriate control strategy for asbestos exposure, who has the authority to take prompt corrective measure to eliminate them, as specified in 29 CFR 1926.32(f). In addition, for Class I and Class II work who is specially trained in a training course which meets the criteria of EPA's Model Accreditation Plan (40 CFR 763) for asbestos supervisor, or its equivalent and, for Class III and Class IV work, who is trained in a manner consistent with EPA requirements for training of local education agency maintenance and custodial staff as set forth at 40 CFR 763.92(a)(2).

"Containment" means an area which has been isolated from the environment through negative air pressure, physical barriers, and/or other means, and in which asbestos abatement is intended to take place.

"Critical barrier" means a temporary closure, usually of polyethylene sheeting or other impervious material, and excluding wall, floor, or ceiling covering, of any opening that would otherwise allow the transfer of asbestos fibers from the containment to the outside environment.

"Demolition" means the wrecking or taking out of any load-supporting structural member of a facility and any related razing, removing, or stripping of asbestos products.

"Dirty room" means a chamber of a decontamination unit connecting the asbestos abatement area to the shower. The dirty room is for removal of contaminated or potentially contaminated protective clothing prior to entering the shower. The dirty room shall be a minimum of twelve (12) square feet and shall be built large enough to accommodate the decontamination of work equipment.

"Disturbance" means activities that disrupt the matrix of ACM or PACM, crumble or pulverize ACM or PACM, or generate visible debris from ACM or PACM. Disturbance includes cutting away small amounts of ACM and PACM, no greater than the amount which can be contained in one standard sized glovebag or waste bag in order to access a building component. In no event shall the amount of ACM or PACM so disturbed exceed that which can be contained in one glovebag or waste bag which shall not exceed 60 inches in length and width.

"DOL" means the Oklahoma State Department of Labor.

"DOT" means the Oklahoma State Department of Transportation.

"EPA" means the United States Environmental Protection Agency.

"Enclosure" means an airtight, impermeable, permanent barrier around asbestos-containing materials to prevent the release of asbestos fibers into the air.

"Facility" means something that is built, installed, or established to serve a particular purpose.

"Friable asbestos-containing material (ACM)" means any material containing more than one percent (1%) asbestos which has been applied on ceilings, walls, structural members, piping, duct work, or any other part of a building, which when dry, may be crumbled, pulverized, or reduced to powder by hand pressure. The term includes non-friable asbestos-containing material after such previously non-friable material becomes damaged to the extent that when dry it may be crumbled, pulverized, or reduced to powder by hand pressure.

"GFI" means electrical ground fault circuit interrupter.

"Glovebag" means a commercially prepared device ~~containing sleeves with attached gloves, for the purpose of removing asbestos from within the device;~~ that is not more than a 60 x 60 inch impervious plastic bag-like enclosure affixed around an asbestos-containing material, with glove-like appendages through which material and tools may be handled and which, when attached and used in a proper manner, will prevent the release of asbestos fibers. For purposes of these Rules, a rigid box with armholes and attached sleeves will be considered to be the same as a glovebag, and the use of such a box in a single location will be considered to be equivalent of the use of one glovebag.

"Grinding" means to reduce to powder or small fragments and includes mechanical chipping or drilling.

"HEPA" means high-efficiency particulate air.

"Inspection" Those activities undertaken to specifically determine the presence or location, or to assess the condition of, friable or non-friable ACM whether by visual or physical examination, or by collecting samples of suspect material.

"Load-out" means ~~a chamber~~ two chambers of a containment area which ~~is~~ are used to decontaminate disposal bags, barrels, and equipment prior to removal from containment.

"Major fiber release episodes" ~~The disturbance of any amount of friable asbestos material in an area that is occupied, or intended to be occupied~~ means any uncontrolled or unintentional disturbance of ACBM, resulting in a visible emission, which involves the falling or dislodging of more than 3 square or linear feet of friable ACBM.

"Mini-containment" means a small enclosure intended to isolate a small-scale abatement procedure from the environment through negative air pressure, physical barriers, and/or other means. Mini containments will ordinarily not have an attached decontamination system.

"Minor fiber release episode" means any uncontrolled or unintentional disturbance of ACBM, resulting in a visible emission, which involves the falling or dislodging of 3 square or linear feet or

less of friable ACBM.

"**NESHAP**" means the National Emission Standards for Hazardous Air Pollutants, EPA regulation 40 CFR part 61, latest edition.

"**NIOSH**" means the National Institute for Occupational Safety and Health.

"**OAP**" means Oklahoma Accreditation Plan.

"**Operation and maintenance**" means ~~limited asbestos abatement activities intended to keep facilities functional~~ a program of work practices to maintain friable ACBM in good condition, ensure clean up of asbestos fibers previously released, and prevent further release by minimizing and controlling friable ACBM disturbance or damage. The scope of operations and maintenance activities shall be defined in a program for a specific school facility, and shall be approved by the Commissioner. In no case shall operations and maintenance exceed the amount of ACM or PACM which can be contained in one (1) glovebag or waste bag which shall not exceed 60 inches in length and width. For the purposes of this Chapter, operation and maintenance work shall be considered the same as small-scale short duration (SSSD) asbestos activities and Class III asbestos work.

"**OSHA**" means the Occupational Safety and Health Administration of the United States Department of Labor.

"**PACM**" means presumed asbestos-containing material.

"**PEL**" means permissible exposure level. For the purposes of this Chapter, the PEL is .01 fibers per cubic centimeter (f/cc).

"**Poly**" means polyethylene sheeting.

"**Private contractor**" means an asbestos abatement contractor, **AHERA** asbestos management planner, or **AHERA** project designer who is a proprietorship, partnership, or corporation operating for profit, or employed by and on behalf of a private, non-profit corporation, trust, charity, or religious organization.

"**Proprietary contractor**" means an owner or operator who holds an asbestos abatement contractor's license for use strictly on the owned or operated property.

"**Public and commercial building facility**" means ~~any building, excluding residential apartment buildings less than six family units. Such buildings generally include but are not limited to: offices, government owned buildings, colleges, museums, airports, hospitals, churches, schools, warehouses and all industrial buildings~~ the interior space of any building which is not a school building, except that the term does not include any residential apartment building of fewer than four (4) units or detached single-family homes. The term includes, but is not limited to: industrial and office buildings, residential apartment buildings and condominiums of four (4) or more dwelling units, government-owned buildings, colleges, museums, airports, hospitals, churches, preschools, stores, warehouses and factories. Interior space includes exterior hallways connecting buildings, porticos, and mechanical systems used to condition interior space.

"**Public contractor**" means an asbestos abatement contractor, **AHERA** management planner, or **AHERA** project designer working specifically for, and on behalf of, a political subdivision of the State of Oklahoma.

"**RACM**" means regulated asbestos-containing materials.

"**Regulated area**" means a demarcated area where asbestos work or response actions are conducted, any adjoining area where debris and waste from such asbestos work or response actions accumulate, and a work area within which airborne concentrations of asbestos exceed or there is a

reasonable possibility they may exceed the permissible exposure limit.

"Regulated asbestos-containing materials (RACM)" means friable asbestos-containing material ~~that contains asbestos of one percent (1%) or more, by weight,~~ Category I nonfriable ACM that has become friable, Category I nonfriable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading, or Category II nonfriable ACM that has a high probability of becoming, or has become crumbled, pulverized, or reduced to powder by forces expected to act on the material in the course of demolition, renovation, or abatement operations regulated by the Rules.

"Reinforced poly" means polyethylene sheeting reinforced with nylon strands.

"Response action" means a method, including removal, encapsulation, enclosure, repair, and operations and maintenance, that protects human health and the environment from friable asbestos-containing materials.

"School building" means:

- a. Any structure suitable for use as a classroom, including a school facility such as a laboratory, library, school eating facility, or facility used for the preparation of food;
- b. Any gymnasium or other facility which is specially designed for athletic or recreational activities for an academic course in physical education;
- c. Any other facility used 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 this definition of "school building" under paragraphs (a), (b), or (c);
- e. Any portico or covered exterior hallway or walkway; or
- f. Any exterior portion of a mechanical system used to condition interior space.

"Shift" means a scheduled period of work by a given group of workers, usually, but not limited to, eight (8) hours.

"Small-scale, short duration operations and maintenance (SSSD) activities" means tasks such as, but not limited to removal of asbestos-containing insulation material on pipes, removal of small quantities of asbestos-containing insulation on beams or above ceilings, replacement of asbestos-containing gaskets on valves, installation or removal of a small section of drywall, installation of wiring or electrical conduits through or proximate to asbestos-containing materials, or minor repairs to damaged thermal system insulation; provided such activities are required in the performance of other maintenance activities not intended as asbestos abatement, and further provided that the quantities of asbestos material to be removed may be contained in a single glove bag or disposal bag or the activity may be performed in a single mini-enclosure removal of small quantities of ACM only if required in the performance of another maintenance activity not intended as asbestos abatement, removal of asbestos-containing thermal system insulation not to exceed amounts greater than those which can be contained in a single glovebag, minor repairs to damaged thermal system insulation which do not require removal, repairs to a piece of asbestos-containing wallboard, or repairs, involving encapsulation, enclosure, or removal, to small amounts of friable ACM only if required in the performance of emergency or routine maintenance activity and not intended solely as asbestos abatement. Such work may not exceed amounts greater than those which can be contained in a single prefabricated mini-enclosure. Such an enclosure shall conform spatially and geometrically to the localized work area, in order to perform its intended containment function. For

the purposes of this Chapter, SSSD asbestos activities shall be considered the same as Class III asbestos work and O&M work.

"Supervisor" means a person or persons at an abatement site with project oversight and worker management responsibilities. For purposes of this Chapter, supervisors will be considered to be a category of abatement worker.

"Third party air monitor" means an air monitoring laboratory which shares no partners or owners, if a proprietorship, or officers if a corporation, with the contractor for whom monitoring is being performed.

"Wetted" means the application of amended water solution to asbestos-containing materials in sufficient quantities to minimize fiber release. The **ACM** need not be saturated.

"Worker" means any employee of a contractor, consultant, or air monitoring company, engaged in the abatement of asbestos, or performing a task within an asbestos abatement containment in which direct contact with asbestos is likely.

SUBCHAPTER 4. PROJECT DESIGN REQUIREMENTS

380:50-4-1. General requirements

(a) No asbestos abatement may begin until a project design for that project, if required, has been approved by **DOL**.

(b) Project designs shall contain at a minimum:

(1) A statement that **DOL** Abatement of Friable Asbestos Materials Rules apply.

(2) Sequencing and phasing of work.

(3) Identification of means of egress, ~~and~~ a fire protection plan and a diagram for emergency escape routes, and fire extinguisher placements.

(4) The quantity, type, percentage with bulk analysis unless presumed and a diagrammed location of asbestos materials to be abated.

(5) Abatement methods, and techniques, and numbers of containments, glovebags or mini-containments.

(6) ~~Numbers~~ Details of personal and area air monitoring pumps samples.

~~(7)~~ Numbers and locations of Clean Test samples and type of analysis to be employed.

~~(7)~~ (8) Numbers, capacities, location a diagram to identify the locations, and discharge points, if any, of negative air machines.

~~(8)~~ (9) Details of the project containment(s), glovebag or mini-containments, including drawings. Details shall include all applicable subchapters of the Oklahoma Asbestos Control Act, including but not limited to scaffolding requirements and live electric isolation.

~~(9)~~ (10) Details of the decontamination system(s).

~~(10)~~ (11) The extent to which asbestos-contaminated soils, if any, must be removed, and the sampling methods of determining the efficacy of such removal.

~~(11)~~ (12) Special materials or methods required to protect objects in the work area should be detailed, (e.g., plywood over carpeting or hardwood floors to prevent damage from scaffolds and falling material).

~~(12)~~ (13) Any variances from the Abatement of Friable Asbestos Materials Rules.

(c) Project designs for enclosure or encapsulation may provide for alternate methods to section

380:50-17-4, with the approval for such alternate methods at the discretion of **DOL**.

(d) Project designs for industrial sites may be generally performance based specifications, subject to approval by **DOL**.

380:50-4-3. Non-AHERA project design requirements

Any abatement that takes place in an area not under the **AHERA** regulations other than small-scale short duration (SSSD) activities, shall have been designed by a licensed project designer; ~~provided the material to be abated is equal to or greater than 160 square feet or 260 linear feet.~~

SUBCHAPTER 5. CONTRACTOR, SUPERVISOR, AND WORKER LICENSING AND REQUIREMENTS

380:50-5-10. Licensing of AHERA asbestos inspectors

Licensing requirements for **AHERA** asbestos inspectors are as follows:

(1) Inspection for asbestos-containing materials in any facility under the jurisdiction of Title 40, Sections 450 through 456 shall be performed only by persons who are licensed as **AHERA** inspectors by the Oklahoma Department of Labor.

(2) **AHERA** inspectors shall be licensed as a special category of asbestos worker and shall have completed a 24-class-hour course for **AHERA** Inspectors and all subsequent asbestos inspector refresher training which fully meet the requirements of Sections 380:50-6-4 and 380:50-6-9.

(3) Applications shall be submitted on forms prescribed by the Commissioner.

(4) The license fee shall be twenty five dollars (\$25.00) per year.

(5) The license shall be issued in the name of the individual applicant ~~and shall be valid only when working for a licensed **AHERA** management planner.~~

(6) The license shall be issued for a period not to exceed one year and shall expire concurrently with the asbestos training and subsequent refresher training. There will be no grace period wherein an inspector will be allowed to work with an expired license.

(7) Any inspector who has not taken the required **AHERA** inspector refresher training course within two years of the previous Inspector training or refresher course, shall repeat the **AHERA** inspector training requirements of Sections 380:50-6-4 and 380:50-6-9.

~~(8) The licenses shall be issued in the name of the individual applicant and shall be valid only when working for a licensed **AHERA** management planner.~~

~~(9)~~ (8) License cards shall be available at the job site for inspection by the Department of Labor.

SUBCHAPTER 6. TRAINING REQUIREMENTS

380:50-6-3. Initial training for asbestos contractors and supervisors

(a) In the State of Oklahoma, anyone seeking accreditation of licensure from the Department of Labor, must obtain their training from an EPA or DOL accredited, education institution, labor union, or government agency, or from a private vocational education provider licensed by the state where it operates (pursuant to 70 O.S. § 21-103 within the state of Oklahoma) and accredited by EPA or an EPA approved governmental agency.

(b) Such institutions, labor unions or government agencies may receive their DOL approval through

the Oklahoma Accreditation Plan providing the following criteria are met:

- (1) The training for asbestos contractor/supervisor shall be specific to the discipline and shall not be combined with training for any other discipline.
- (2) The contractor/supervisor's course shall be no less than five days in length and shall include: lectures, demonstrations, at least 14 hours of hands-on training, individual respirator fit testing, course review and an written examination. Hands on training must permit contractor/supervisors to have actual experience performing tasks associated with asbestos abatement. The **OAP** also recommends the use of audio-visual materials to complement lectures, where appropriate. One day of training equals 8 hours, including breaks and lunch.
- (3) Course instruction must be provided by EPA or State approved instructors. **EPA** or State approval shall be based on a review of the instructor's academic credentials and/or field experience in asbestos abatement.
- (4) The training course for Contractors/Supervisors shall adequately address the following topics:
 - (A) Physical characteristics of asbestos. Identification of asbestos, aerodynamic characteristics, typical uses, and physical appearance; 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 safe exposure levels; the synergistic effect between cigarette smoking and asbestos exposure; the latency periods for asbestos related diseases; 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; proper selection, inspection; donning, use, maintenance and storage procedures for respirators; methods for field testing of the facepiece-to-face seal (positive and negative pressure fit checks); qualitative and quantitative fit testing procedures; variability between field and laboratory protection factors that alter respiratory fit (e.g., facial hair, etc.) the components of a proper respiratory protection program; selection and use of personal protective clothing; use, storage and handling of non-disposable clothing; 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; lock-out of electrical and ventilation systems; proper work techniques for minimizing fiber release; use of wet methods; use of negative pressure exhaust ventilation equipment; (HEPA)-vacuums; proper clean-up, load-out 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, chewing gum or tobacco, or applying cosmetics in the work area. Potential exposures, such as family exposures, shall also be included.
 - (F) Additional safety hazards. Hazards encountered during abatement activities and how to deal with them, including electrical hazards, heat/cold stress, air contaminants other than

asbestos, fire and explosion hazards, scaffolds and ladder hazards, slips, trips and falls and confined spaces.

(G) Medical monitoring. OSHA 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 description of aggressive air sampling, sampling equipment and methods, reasons for air monitoring, types of sampling and interpretation of results.

(I) Relevant Federal, State and local regulatory requirements and standards, including: requirements of TSCA Title II; requirements of NESHAP (40 CFR Part 61), Subpart A (General Provisions) and M (National Emission Standard for Asbestos); OSHA standards for permissible exposure levels and respiratory protection; Oklahoma Requirements for permissible exposure levels; OSHA Asbestos Construction Standards.

(J) Respiratory Protection Programs and Medical Monitoring Programs.

(K) Insurance and Liability issues and Contractor issues. ~~Worker's~~ Workers' compensation coverage and exclusions; third party liability and defenses, insurance coverage and exclusions; environmental impairment insurance.

(L) Record keeping for asbestos abatement projects. Records required by Federal, State and Local regulations; records recommended for legal 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. Discussions of key elements that are included in contract specifications.

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

(c) In addition to the five day contractor/supervisor's course, anyone seeking licensure from the State of Oklahoma will be required to show current certification of the following additional training:

(1) Cardio-Pulmonary Resuscitation from the American Heart Association, American Red Cross or other DOL approved trainer provider

(2) First Aid from the American Heart Association, American Red Cross or other DOL approved trainer provider

(3) **NIOSH** 582 or equivalent or a two day course in air monitoring practices and procedures

(4) **OSHA** Confined Space Entry

(5) Six months of experience on projects inspected by the **DOL**, including a minimum of six (6) different abatement projects or containments or one year of experience as an asbestos worker and six months as an asbestos ~~abatement~~ supervisor on projects which have not been inspected by the **DOL**.

SUBCHAPTER 9. CONTRACTOR PROCEDURES

380:50-9-1. Contractor notification

~~Contractors shall notify the Commissioner in writing ten (10) days prior to performing any asbestos abatement work. Notification shall include:~~

(a) For projects involving any asbestos abatement or response action other than emergencies, O&M for schools, SSSD or Class III for facilities and public and commercial facilities:

(1) Notifications shall be submitted in accordance with the following schedule:

(A) A notification is required ten (10) days prior to performing asbestos abatement or response actions for projects involving more than one glovebag and less than 160 square feet or 260 linear feet of asbestos-containing materials.

(B) A notification is required ten (10) days prior to performing asbestos abatement or response actions for projects involving 160 square feet or 260 linear feet or more of asbestos-containing materials.

(C) Projects shall not be divided into small sequential segments for the purpose of avoiding the requirements of this Chapter.

(2) Asbestos contractors shall notify the Commissioner in writing, and on forms prescribed by the Commissioner. Notification shall include:

~~(1)~~ (A) Contractor's Asbestos contractor's name, address, and phone number.

~~(2)~~ (B) Owner's name, address, and phone number.

~~(3)~~ (C) Location of job site.

~~(4)~~ (D) Projected starting date.

~~(5)~~ (E) Projected ending date.

~~(6)~~ (F) Abatement technique.

~~(7)~~ (G) Amount of asbestos to be abated as linear feet and/or square feet.

~~(8)~~ (H) Names and addresses of all consultants, industrial hygienists, testing laboratories, or other subcontractors to be utilized during the project.

~~(9)~~ (I) Name and address of landfill to be used for asbestos disposal.

~~(10)~~ (J) Plans for decontamination facilities.

~~(11)~~ (K) Copies of project documents, including:

~~(A)~~ (i) Bonds and insurance certificates as applied to public projects.

~~(B)~~ (ii) NESHAPS notification.

~~(12)~~ (L) Written permission from the owners of all vehicles and/or trailers not owned by the contractor that will be used to transport asbestos-containing articles or containers.

~~(13)~~ (M) Names and addresses of haulers of asbestos for hire, who shall be licensed asbestos abatement contractors.

~~(14)~~ (N) A certificate of vehicle liability insurance specifically covering any vehicles or trailers used to transport asbestos-containing or contaminated waste, equipment, or materials. The limits of liability shall not be less than one million dollars (\$1,000,000).

(O) The project design.

(b) For O&M for schools and Class III for facilities and public and commercial facilities:

(1) Asbestos contractors shall notify the Commissioner in writing by fax or email, and on submittal forms prescribed by the Commissioner, prior to performing any O&M for schools or SSSD or Class III for public and commercial facilities. Notification shall include:

(A) Asbestos contractor's name, address, and phone number.

(B) Owner's name, address, and phone number.

(C) Location of job site.

(D) Projected starting date.

(E) Projected ending date.

(F) Abatement technique.

(G) Amount of asbestos to be abated as linear feet and/or square feet.

(H) Names and addresses of all consultants, industrial hygienists, testing laboratories, or other subcontractors to be utilized during the project.

(I) Name and address of landfill to be used for asbestos disposal.

380:50-9-2. Emergency notification

(a) Notification by phone, email or fax is permitted in the case of an emergency involving protection of limb, life and property. Notification shall include the information contained in ~~Section 380:50-9-1(1) through (13)~~, Section 380:50-9-1(a)(2) and the date of the contract. The written notification items in ~~Section 380:50-9-1(1) through (13)~~ Section 380:50-9-1(a)(2) above shall be submitted to the Commissioner within ~~three (3) days~~ twenty-four (24) hours after the start of abatement.

(b) The Contractor shall immediately notify the Commissioner of any changes in the information provided under ~~Section 380:50-9-1(1) through (14)~~ Section 380:50-9-1(a)(2).

(c) In case of an emergency, as determined by the Commissioner, the project design will be waived.

380:50-9-5. Notifications of hazards

The contractor or supervisor shall immediately inform and follow up with the owner and the Commissioner by phone, fax or email of health hazards created during abatement. This will include, but is not limited to, such occurrences as breaching the containment area, loss of negative pressure to a negative pressure containment, air monitoring tests indicating airborne asbestos above acceptable levels, accidents recordable injuries, loss of power, etc.

SUBCHAPTER 11. LABORATORY REQUIREMENTS

380:50-11-1. Daily air monitoring requirements

Daily air monitoring requirements shall consist of the following:

(1) Personal monitoring.

(A) One (1) personal air sample for every four workers, but a minimum of two (2) personal air samples collected from within the work area, and a minimum of two (2) personal air samples per abatement crew, by a method to be determined by the Commissioner. One (1) of these personal air samples must be from a worker collecting and bagging asbestos, and one must be from a worker in the loadout area, where applicable.

(B) All personal monitoring results shall be reported with the type of respirator worn by the worker and the license number of each worker.

(C) The exposure to airborne fiber concentrations by workers on abatement projects shall be limited to a maximum value of 0.01 fibers per cubic centimeter within the assigned respirator, as determined by dividing the airborne fiber concentration by the respirator protection factor.

(2) Inside area monitoring.

(A) A minimum of one (1) area sample in the vicinity of each abatement crew.

(B) One (1) sample from the load-out area during load-out activities.

(3) Outside area monitoring.

(A) Minimum of, but not limited to, one (1) air sample from each independent exit area

collected directly outside and adjacent to the work area as designated in the project design.

(B) One (1) sample per shift from the exhaust of each negative air machine, or common exhaust duct of multiple machines, which discharges from the containment area. Such discharge shall not be permitted to exceed 0.01 fibers/cc.

(C) One (1) sample immediately outside the clean room. Air monitoring in the clean-room of the decontamination system is not a requirement of these Rules.

(D) Minimum of, not limited to, one (1) additional air sample as designated in the project design.

(4) Calibration shall be accomplished ~~immediately~~ prior to, ~~and immediately following the use of any air~~ and at the conclusion of sampling device. The average flow rate shall be utilized for all calculations of airborne concentrations relating to asbestos.

(A) All non-primary type flow measuring devices shall be routinely calibrated by using a primary standard once per month, and shall be accompanied with calibration records and/or charts which shall contain:

(i) Date of calibration.

(ii) Individual accomplishing calibration.

(iii) Identification of referenced primary standard including serial number.

(iv) Number of calibration points with accompanying table reflecting indicated flow versus actual flow.

(B) Floating ball type flow meters shall be non-adjustable, or shall be sealed and the seal must not be broken. A wax ring is an appropriate seal.

(5) No airborne fiber count shall be reported to the Department of Labor or any other entity as a numerical value if the count is less than the minimum level of detectability for the method used for analysis. The value shall be reported as less than the detectable limit, with that limit so stated.

~~(6) A ten fiber minimum quantification limit shall be applied when determining the detection limit of a given sample.~~

380:50-11-2. Clean-test requirements

(a) After all abatement and cleanup procedures are concluded, a Clean Test shall be conducted to ensure cleanliness of the abatement area prior to re-occupancy of the abatement area.

(b) Clean Test (~~re-occupancy~~) samples shall not be conducted until a visual inspection is performed by Oklahoma Department of Labor personnel.

(c) Clean Test samples shall be by aggressive sampling techniques, the number and method of such tests to be ~~determined by the Commissioner~~ specified by the project design.

~~(1) There shall be a minimum of:~~

~~(A) One test sample for every 1500 square feet, or fraction thereof, or one test sample for every 15,000 cubic feet or fraction thereof, whichever is greater.~~

~~(B) Three test samples per containment, for projects greater than 160 square feet or 260 linear feet.~~

~~(C) One sample per room or discrete area.~~

(1) For all projects, other than O&M, SSSD, or Class III, where less than 160 square feet or 260 linear feet of ACM or PACM has been removed:

(A) A minimum of five (5) samples shall be run in a regulated area located in a public or commercial facility. Samples shall be analyzed by Phase Contrast Microscopy (PCM).

(B) A minimum of five (5) samples shall be run in a regulated area located in a school facility as defined by AHERA. Samples shall be analyzed by Phase Contrast Microscopy (PCM).

(2) For all projects, other than O&M, SSSD, or Class III, where 160 square feet or 260 linear feet or more of ACM or PACM has been removed:

(A) A minimum of five (5) samples shall be run in a regulated area located in a public or commercial facility. Samples shall be analyzed by Phase Contrast Microscopy (PCM).

(B) A minimum of five (5) samples shall be run in a regulated area located in a school facility as defined by AHERA. Samples shall be analyzed by Transmission Electron Microscopy (TEM).

~~(2) (3) Sample flow rates shall be limited to ten (10) liters per minute for 25-millimeter, or twenty (20) liters per minute for 37-millimeter diameter cassettes.~~

~~(3) Samples shall be taken over a period of not fewer than six hours. If shorter sampling periods are used, there must be a proportionately greater number of samples taken.~~

(4) The minimum volume of air drawn for each Clean Test sample shall be 1,200 liters for a 25-millimeter cassette.

~~(d) For the Clean Test to be approved using PCM analysis, the upper confidence limit of the airborne fiber concentration shall be less than 0.01 fibers per cubic centimeter or the airborne fiber concentration outside the containment as determined prior to abatement, whichever is greater, except that for asbestos abatement for any local education authority which involves abatement of more than 160 square feet or 260 linear feet, the Clean Test shall meet the EPA AHERA requirements for TEM. Projects may not be divided into small, sequential segments for the purpose of avoiding this requirement.~~

~~(e) For any PCM analysis exceeding the allowed clearance Clean Test level for any cassette on a project not covered under AHERA regulations, the contractor may have such cassettes analyzed by TEM utilizing NIOSH Method 7402, in which case the asbestos fiber level shall be less than 0.01 fibers/cc for those fibers greater than five (5) micrometers.~~

(f) For Clean Tests to be approved using TEM analysis, the average concentration of the five (5) air samples collected within the regulated area, shall be less than 70 structures per square millimeter.

380:50-11-3. Laboratory Sampling and monitoring requirements

(a) Airborne fiber analysis shall be in accordance with the NIOSH Manual of Analytical Methods, No. 7400, "Asbestos and Other Fibers by PCM", as amended.

(1) No airborne fiber count shall be reported to DOL or any other entity as a numerical value if the count is less than the minimum level of detectability for the method used for analysis. The value shall be reported as less than the detectable limit, with limit so stated.

(2) Upper and lower confidence limits shall be reported for all air samples.

(3) If the actual number of fibers counted is less than the limit of detection, the limit of detection shall be used to calculate the upper and lower confidence limits.

(b) All asbestos analyses shall be performed by laboratories which have quality control programs approved in advance by, and at the discretion of the Commissioner using a set of published

guidelines, or which utilize only laboratory technicians who have successfully completed **DOL**-approved courses in the type analyses performed by the technician, and which:

- (1) For bulk asbestos analysis:
 - (A) Are certified by the National Voluntary Laboratory Accreditation Program, for laboratories providing bulk sample analyses, or
 - (B) Participate in the **AIHA** Bulk Asbestos Proficiency Testing Program, latest round, and scored seventy five percent (75%) correct be rated proficient for the latest round.
- (2) For **NIOSH** Method 7400 fiber counting analysis:
 - (A) Participate in the **AIHA** Proficiency Analytical Testing (**PAT**) Program, latest round, and are proficient for the round, or
 - (B) Have all individual analysts participate in the **AIHA** Asbestos Analyst Registry (**AAR**) program and are rated as proficient for each analyst.
- (3) The National Voluntary Laboratory Accreditation Program, for laboratories providing fiber counting analyses using **TEM**.

380:50-11-5. Technician's requirements

- (a) All reports of analyses shall be signed by the technician performing the analysis.
- (b) All technicians performing on-site air monitoring shall have:
 - (1) The **NIOSH** course No. 582 on "Sampling and Analysis of Airborne Asbestos Dust", or equivalent. Such course shall have been provided by a government agency or educational institution except, any person with training recognized by **DOL** prior to the effective date of these rules shall continue to be recognized.
 - (2) A valid asbestos ~~abatement workers~~ worker, asbestos supervisor, asbestos inspector, asbestos management planner, or asbestos project designer license.
- (c) All technicians performing PCM analysis shall have The **NIOSH** course No. 582 on "Sampling and Analysis of Airborne Asbestos Dust", or equivalent. Such course shall have been provided by a government agency or educational institution except, any person with training recognized by **DOL** prior to the effective date of these rules shall continue to be recognized.
- (d) All technicians performing bulk analyses must have a four-day course, or equivalent, in the bulk analysis of asbestos-containing materials.
- (e) All technicians performing on-site air monitoring must follow the sampling procedures identified in 380:50-11-1, 380:50-11-2, and where applicable, the approved project design.
- (f) All technicians performing on-site air monitoring shall maintain an on-site daily activity log. The log shall include:
 - (1) Time of on-site arrival and departure.
 - (2) Times of entrance into the regulated area to ensure sample integrity.
 - (3) Signature of on-site asbestos supervisor.
 - (4) All cassettes must be properly labeled as they are placed for sample collection.

380:50-11-7. Third party monitoring requirements for private contractors

- (a) Air monitoring done for private abatement contractors to fulfill the requirements of Section 380:50-11-1(1) through (6) and Section 380:50-11-2 shall be done by an independent third party, except:

- (1) When the quantity of asbestos to be removed is less than 160 square feet or 260 linear feet,
or
 - (2) When the abatement is performed under the terms of an approved **O&M** program.
- (b) Contractors will not be issued violations for laboratory deficiencies.

SUBCHAPTER 13. GLOVEBAG OPERATIONS

380:50-13-1. General requirements

(a) Except as noted in this Subchapter, glovebag operations which shall include drop cloths and critical barrier(s) for the purpose of abatement shall be treated the same as other abatement procedures. Therefore,

(1) Air sampling shall be consistent with Subchapter 11 of this Chapter, ~~except worker personal air monitoring may be substituted for inside work area and clearance monitoring provided:~~

~~(A) All workers are monitored.~~

~~(B) All personal monitors have a detection limit below passive background or below 0.01 fibers/cc, whichever is greater.~~

~~(C) All personal monitors have a measured value below background or 0.01 fibers/cc, whichever is greater.~~

(2) **HEPA** vacuum system shall be utilized during all glovebagging operations.

(3) Glovebags shall be maintained under negative air pressure, when feasible, but the use of a negative pressure measuring system shall not be required. The inward bulging of the glove bag due to negative pressure inside the glove bag shall be sufficient indication of adequate pressure drop. In the event it is not feasible to maintain the glovebag under negative air conditions, each such glovebag shall be smoke-tested.

(4) Pipe and/or fixtures from which asbestos has been removed within a glove bag shall be coated with a suitable lockdown encapsulant prior to removal of the glovebag.

(5) A glove bag may not be used for more than one application and may not be modified.

(6) Electrical equipment below the level of the glovebag or within arm's reach of the glovebag must be de-activated. All electrical equipment used by the workers must be provided **GFI** protection.

(7) Personnel involved in glovebag abatement shall be required to:

(A) Wear appropriate personal protective equipment (e.g., proper respiratory protection and full-body protection of Section 380:50-15-2 and Section 380:50-15-6, respectively).

(B) Fully utilize a decontamination shower which has at a minimum:

(i) A location which may be reached by using a clean protective suit over the potentially contaminated work suit.

(ii) The requirements of Section 380:50-15-12(c).

(b) A minimum of two (2) workers shall be used on any glovebag activity.

(c) Glovebags used within a containment, for convenience, shall not be subject to the provisions of this Subchapter.

SUBCHAPTER 15. WORKER AND WORK AREA PROTECTION

380:50-15-2. Respirator requirements

- (a) The contractor shall provide workers with respirators in accordance with the approved respirator program, a copy of which shall be available to workers at the job site.
- (b) Workers shall wear suitable respiratory protection when working within arm's reach of friable asbestos during construction of the containment, or after a fiber release episode, or if there is visible asbestos debris in the area.
- (c) Workers shall wear, at a minimum, a fullface air-purifying respirator (**APR**) when removing asbestos, except when the provisions of Section 380:50-15-5 apply.
- (d) The contractor shall provide a sufficient quantity of filters approved for asbestos so workers can change filters during the workday.
 - (1) Filters shall not be used any longer than one (1) workday, nor after the respirator has entered the decontamination shower, nor after a worker has requested a new cartridge(s) when required, except: respirator cartridges with **NIOSH** approved, factory supplied, waterproof seals which may be taken through the decontamination shower without wetting the cartridge may be reused, provided:
 - (A) There is an on-site respirator cartridge flow measurement device which can determine the need for changing the filters, and
 - (B) Workers shall obtain new cartridges when required.
 - (2) The respirator filters shall be stored at the job site in the clean room and shall be totally protected from exposure to asbestos prior to their use.
 - (3) Single use, disposable respirators will not be approved.
 - (4) Protection factors of up to 50 for the full face-piece respirators may be used provided these protection factors have been verified by a quantitative fit test for each worker ~~within the previous six months, and the result made available at the work site.~~
- (e) Contractors shall instruct and train workers in proper respirator use and maintenance, and shall abide by their own respirator programs.

380:50-15-5. Pressure-demand supplied-air respirators

- (a) Pressure-demand supplied-air respirators or Powered Air Purifying Respirators shall be worn for all gross asbestos removal, excluding glovebag operations, if:
 - (1) Air-monitoring results from the previous work shift are not available at the job site.
 - (2) Any of the personal or area air samples indicate airborne fiber concentrations are at a level above which respirators with a lower protection factor would not be adequate, (29 CFR 1926.1101 Table 1, with the Permissible Exposure Limit changed to 0.01 fibers per cubic centimeter), provided the initial shift used to justify respirator downgrading shall be a minimum of seven hours of work involving the actual removal of asbestos.
 - (3) An incident occurs with the potential for raising the airborne fiber concentrations to such a level.
- (b) Pressure-demand supplied-air respirators shall consist only of parts related to the **MSHA/NIOSH**-approved number. The contractor shall have on site manufacturer's specifications for supplied-air respirators.
- (c) Pressure-demand supplied-air respirators shall be provided by the contractor with a pressure gauge down-stream of the supply regulators to permit Department of Labor inspectors to determine

whether pressure requirements are being met.

(d) Pressure-demand supplied-air respirators shall be provided Grade “D” air that has been processed through a filtration apparatus to ensure that the following levels of contaminants are not exceeded:

(1) Carbon monoxide, less than 10 parts per million. The contractor, at all times supplied air is being used, shall daily and at other times requested by **DOL** Inspectors, test the carbon monoxide alarm with 10 parts per million carbon monoxide test gas.

(2) Hydrocarbons less than five milligrams per cubic meter. The supplied air shall be free of tastes, odors, smoke, and the ability to produce an oily film within the respirator face-piece.

(3) Carbon dioxide, less than 1000 parts per million.

(e) Pressure-demand supplied-air respirators ~~may~~ must be provided with automatically engaging **HEPA** filter cartridges for emergency egress in addition to the required reserve air supply.

(f) Pressure-demand supplied-air respirators shall not be required on subsequent containments of a single abatement project, provided:

(1) The asbestos-containing materials are identical to previous containments of the same abatement project.

(2) All of the personal and area air samples indicate airborne fiber concentrations are below levels at which respirators with a lower protection factor would be adequate, (29 CFR 1926.1101 Table 1, with the Permissible Exposure Limit changed to 0.01 fibers per cubic centimeter).

(3) The abatement crews are substantially the same.

~~(4) There is no crocidolite content in the friable asbestos material being abated.~~

~~(5) (4)~~ (4) The number of workers on the crew have not increased by more than fifty (50) percent.

~~(6) (5)~~ (5) The contractor assumes responsibility for downgrading to a lesser protective respirator, and is subject to citation for serious violations if workers are exposed to greater concentrations than are allowed by Section 380:50-15-5(a)(2), based on the lower confidence limits of the personal monitoring results. It is not necessary to notify **DOL** of such downgrading.

380:50-15-8. Decontamination procedures

All workers exiting the containment area without exception shall:

(1) Remove the footwear, coveralls, and head covers in the work area before leaving the work area dirty room.

(2) Still wearing their respirators, proceed to the showers ~~and remove and thoroughly wash their respirators, while showering with soap and water.~~ After thoroughly washing with soap and water, remove respirators and wash respirator.

(3) Shower thoroughly the skin and hair before entering the clean room to change into street clothes.

380:50-15-12. Decontamination facility preparation

(a) ~~The~~ On projects of 10 square feet or 25 linear feet and greater, the contractor shall set up a decontamination facility ~~outside attached to~~ the work area which shall consist of a clean room, shower area, and dirty room. The facility shall be constructed so as to permit use by either sex without embarrassment or harassment. The decontamination facility shall be subject to the approval of the Commissioner.

- (b) All shower water waste shall be equipped with 5 micron filters. The shower filter and residue shall be disposed of as contaminated material.
- (c) All decontamination shower facilities shall have:
 - (1) Functioning hot water storage capacity of five gallons per on-site Worker at 130 degrees Fahrenheit, or;
 - (2) A functioning in-line water heater capable of delivering a continuous supply of water at a temperature of 100 degrees Fahrenheit.
 - (3) Means of dispensing liquid cleaning agent in a safe, sanitary manner. Use of bar soap will not be permitted. Cleaning agents supplied should be suitable for use on skin and hair.
 - (4) Ten foot-candles of illumination in all areas of the decontamination unit.
 - (5) Showers shall be stable, free of sharp edges, and trip or fall hazards.
 - (6) Shower grates shall be constructed of non-porous materials. If wooden, the shower grate shall be varnished or painted with non-skid, non-porous paint.
 - (7) Negative pressure created by a ~~HEPA filtered suction device~~ an externally vented negative air machine, equipped with HEPA filter, primary filter and secondary filter and a flow of make-up air from the clean room through the shower to the dirty room. In the case of decontamination showers which are not directly between the clean room and the dirty room, a source of make-up air must be provided directly to the shower chamber.
 - (8) The temperature of the clean room and shower shall be maintained above fifty degrees Fahrenheit (50° F).
- (d) Centralized decontamination facilities shall follow the same requirements.

380:50-15-14. Fire extinguishers

- (a) The work area shall have a dry-charge ammonium phosphate fire extinguisher with an Underwriters Laboratories, Inc. rating of at least 10A:B:C, with a valid inspection tag, and which must be decontaminated upon removal.
- (b) A minimum of one 10A:B:C fire extinguisher shall be provided for each 3,000 square feet of the work area, or major fraction thereof. Travel distance from any point of the work area to the nearest fire extinguisher shall not exceed 75 linear feet.

SUBCHAPTER 17. MINIMUM ABATEMENT STANDARDS

380:50-17-1. Contractor's scope of work

- (a) The contractor shall meet the following staffing requirements:
 - (1) An asbestos abatement supervisor shall be on-site at all times abatement work is being performed, except for glovebag **O&M** projects, unless such glovebag projects are for **AHERA** regulated schools. Such supervisors shall be prepared at any time to enter the containment as required.
 - (2) A licensed asbestos worker, supervisor, or responsible party shall be stationed outside the containment at all times, except for short term excursions in the containment.
 - (3) Any person working within the demarcated work area shall hold a current worker, supervisor, or contractor license, except for:
 - (A) Professional scaffolding erectors,

(B) Licensed electricians, or

(C) Owners or owners representatives, provided their work does not entail contact with **ACM**.

(b) The contractor shall be responsible for all labor, material, services, insurance as required, and equipment necessary to carry out the abatement operation in accordance with regulations and job specifications.

(c) The contractor shall be responsible for obtaining approval for a waste disposal site in compliance with the Oklahoma State Department of Health.

(d) Contractors shall post the **EPA** and **OSHA** regulations (and any applicable state and local government regulations) at the job site, including where applicable:

(1) Minimum or prevailing wage notices.

(2) Emergency numbers.

(e) All air-monitoring results shall be posted at the site as they are obtained by the contractor. If the air monitoring results are being used to justify using other than supplied air respirators, the posted air monitoring results must be from the preceding shift prior to the beginning of the succeeding shift.

(f) Contractors shall have available at the job site, workers' respirator fit test records, for projects subject to scheduled inspections by **DOL**.

(g) Contractors shall have a copy of all Material Safety Data Sheets (MSDS) available and on-site for all material.

380:50-17-4. Preparation of asbestos abatement work areas

Preparation of asbestos abatement work areas shall be as follows:

(1) Shut down and lock out electric power to the work area. Provide temporary power and lighting to ensure safe installation (including ground fault interruption) of temporary power sources and equipment by compliance with all applicable electrical code requirements and **OSHA** requirements for temporary electrical systems.

(A) All electrical power entering the containment must be fed from **GFI** protected circuits.

(B) All **GFI** protected circuits shall trip at or below seven (7) milli-amps of electrical current.

(C) There may be some occasions when it is not possible to shut down all electrical power to the asbestos work area. In this case, a request for variance is required along with a written procedure, approved by a licensed electrician or an electrical engineer, outlining steps to be taken to ensure asbestos worker safety which shall include at a minimum:

(i) Identify in advance all electrical power 24 volts and above, which is to be left active.

(ii) Mark the wiring, conduit, panels or equipment in such a way that is readily apparent to the asbestos contractor and to DOL asbestos inspectors.

(iii) Provide details of all steps to be taken by asbestos contractors to protect the wiring, conduit, panels or equipment from intrusion of water and wetting agents used by the asbestos contractor. Rigid steel conduit with collars need not be addressed in the written procedures.

- (iv) Provide details of all procedures to be taken by asbestos workers to prevent electrical hazards under abatement conditions.
- (v) Sign written procedures and provide license number of electrician or seal of electrical engineer for submittal to the DOL.
- (vi) Provide and require all asbestos workers in the work area of activated wiring, conduit, panels or equipment to wear rubber boots, properly rated rubber gloves with current inspection and non-conducting hats.
- (2) Shut down and lock out all heating, cooling and air conditioning system (**HVAC**) components that are in, supply, or pass through the work area. Seal all intake and exhaust vents in the work area with tape and 6-mil **poly**. Also seal any seams in system components that pass through the work area.
- (3) The Contractor shall provide sanitary facilities for abatement personnel outside the enclosed work area and maintain them in a clean and sanitary condition throughout the project.
- (4) Clean all movable objects within the work area using a **HEPA** filtered vacuum and/or wet-cleaning methods as appropriate. After cleaning, these objects shall be removed from the work area and stored in an uncontaminated location. Carpeting, drapes, clothing, upholstered furniture and other fabric items shall be properly decontaminated or disposed of as contaminated waste.
- (5) Clean all fixed objects in the work area using **HEPA** filtered vacuums and/or wet-cleaning techniques as appropriate. Careful attention must be paid to machinery behind grills or gratings where access may be difficult but contamination significant. Also pay particular attention to wall, floor, and ceiling penetrations behind fixed items. After cleaning, enclose fixed objects in a minimum of 4-mil poly sheeting and seal securely in place with tape.
- (6) Clean all surfaces in the work area using **HEPA** filtered vacuums and/or wet-cleaning methods as appropriate. Do not use any methods that would raise dust such as dry sweeping or vacuuming with equipment not equipped with **HEPA** filters. Do not disturb asbestos-containing materials during the initial cleaning phase.
- (7) Floors shall be covered with two layers of 6-mil (minimum) sheeting. Additional layers of sheeting may be utilized as drop cloths to aid in cleanup of bulk materials.
- (A) Floor sheeting shall extend at least 12 inches up the sidewalls of the work area.
- (B) Sheeting shall be installed in a fashion to prevent slippage between successive layers of material.
- (8) Walls shall be covered with a minimum of two layers of 4-mil **poly**, except if fire retardant, nylon reinforced **poly** is used throughout an interior abatement project, the walls shall be covered with a minimum of one layer.
- (A) Wall sheeting shall overlap floor sheeting by at least 12 inches beyond the wall/floor joint to provide a better seal against water damage. Wall sheeting shall be securely attached to the floor sheeting.
- (B) Wall sheeting shall be secured adequately to prevent it from falling away from the walls. This will require additional support/attachment when negative pressure ventilation systems are utilized.
- (9) Strippable, latex-based, sprayed-on wall and floor films may be used in conjunction with,

or in lieu of **poly** when appropriate, and when applied in accordance with manufacturer's recommendations.

(10) Any cleaning activities, prior to construction of the containment, which has the potential for contact with **ACM** shall require:

(A) Workers wear protective clothing in accordance with Section 380:50-15-6.

(B) Workers wear, at a minimum, a full-face air purifying respirator.

(C) Air monitoring be performed in accordance with Section 380:50-11-1.

(D) The construction and use of a decontamination facility in accordance with Sections 380:50-15-8 and 380-50:15-12.

(E) The construction and use of a load out facility as defined by Section 380:50-1-2.

(F) Project design must identify this work activity.

(G) Decontamination unit, and demarcation of the job site shall be subject to DOL inspection(s) prior to any cleaning activities.

380:50-17-5. Asbestos removal procedures

Asbestos removal procedures are as follows:

(1) Isolate and clean the work area.

(2) Wet all asbestos-containing material with an amended water solution using equipment capable of providing a fine spray mist. Saturate the material to the substrate. However, do not allow excessive water to accumulate in the work area. Keep all removed material wet enough to prevent fiber release until it can be placed in containers for disposal.

(3) Wetted asbestos-containing material shall be removed in manageable sections. If removal procedure uses a mechanical vacuum system, the container the material deposits in shall be in a secured area with hard walls at least eight (8) feet in height and shall be monitored to ensure no exposure to the operator or ambient air. Removed material shall be placed in containers before moving to a new location for continuance of work. Surrounding areas shall be periodically sprayed and maintained in a wet condition until visible material is cleaned up.

(4) Material removed from building structures or components shall not be dropped or thrown to the floor.

(5) Containers (6-mil polyethylene bags or drums) shall be sealed when full. Bags shall not be overfilled. They shall be securely sealed to prevent accidental opening and leakage by tying tops of bags in an overhand knot or by taping in a goose-neck fashion. Do not seal bags with wire or cord. Bagged material may be stored in containment if space allows, or in the first air-lock of the loadout facility. Bags may be placed in drums for staging and transportation to the landfill. Bags shall be decontaminated on exterior surfaces by wet cleaning and **HEPA** vacuuming before being placed in clean drums.

(6) For transport to the landfill and when not exposed to the elements, components removed intact shall be wrapped in a minimum two layers of 6-mil **poly** secured with tape.

(7) Asbestos-containing waste with sharp-edged components (e.g. nails, screws, metal lath, tin sheeting) may tear the polyethylene bags or sheeting and shall be placed into drums, or boxes wrapped in a minimum of two layers of 6-mil **poly**, secured with tape.

(8) After completion of all stripping work, surfaces from which asbestos-containing materials have been removed shall be wet brushed and sponged or cleaned by some equivalent method to

remove all visible residue.

(9) Cleanup shall proceed in accordance with Section 380:50-17-8.

380:50-17-8. Asbestos abatement cleanup procedures

Asbestos abatement cleanup procedures are as follows:

(1) Remove and place in containers all visible accumulations of asbestos-containing material and asbestos-contaminated debris, utilizing rubber dust pans and rubber squeegees to move material about. Do not use metal shovels to pick up or move accumulated waste. Special care shall be taken to minimize damage to floor sheeting.

(2) Wet clean all surfaces in the work area using rags, mops and sponges as appropriate.

(3) Remove the cleaned outer layer of plastic sheeting from walls and floors prior to receiving the visual inspection. Windows, doors, **HVAC** system vents and all other openings shall remain sealed. The negative air machines shall remain in continuous operation. Decontamination enclosure systems shall remain in place and be utilized.

(4) After cleaning the work area, wait for all surfaces to dry, then **HEPA** vacuum and wet clean all objects and surfaces in the work area again.

(5) Remove all containers of waste from the work area through the load-out airlock, prior to the visual inspection required in Section 380:50-17-10(1).

(6) Decontaminate all tools, equipment, and miscellaneous items and remove at the appropriate time in the cleaning sequence.

(7) Inspect the work area for visible residue. If any accumulation of residue is observed, it will be assumed to be asbestos-containing and the cleaning cycle shall be repeated.

(8) After the work area has been rendered free of visible residue, a ~~thin~~ visible coat of a satisfactory lock-down agent shall be applied to all surfaces in the work area including structural members, building components and plastic sheeting on walls, floors, and covering non-removable items, to seal in non-visible residue. The lock-down agent shall be:

(A) Tinted to ensure full coverage.

(B) Tested as-tinted, and certified by Underwriters Laboratories, to have a fire rating compatible with the area in which it is being used.

380:50-17-10. Re-establishment of the work area and systems

Re-establishment of the work area shall occur only after the following sequence of procedures has been performed and documented to the satisfaction of the Commissioner:

(1) After satisfactory completion of the required visual inspection by **DOL**, clearance testing according to Section 380:50-11-2 shall be conducted.

(2) Remaining **poly** shall be removed from walls and floors and disposed of as ACM, maintaining decontamination enclosure systems and critical barriers as required.

(3) The contractor shall notify the Commissioner for an inspection of the work area for any remaining visible residue, if such inspection was not waived by the Inspector at the time of the visual inspection. Evidence of contamination will necessitate additional cleaning requirements in accordance with Section 380:50-17-8.

(4) Additional air monitoring shall be performed if additional cleanup is necessary.

(5) Critical barriers may be removed and disposed of as asbestos-contaminated waste.

(6) Replace all items or equipment removed in accordance with Section 380:50-17-4(4), as appropriate.

380:50-17-13. Industrial applications of rules

Subchapter 19 of this Chapter is intended primarily for interior, non-industrial settings and may not be suitable in particular instances of industrial applications. In such cases, an industry or contractor may submit, in advance, an alternate plan of action to accomplish abatement in:

- (1) A unique circumstance, or
- (2) A plan to cover typical and repetitive circumstances.
- (3) Any abatement in containments not totally enclosed, or in glovebags, may take place only when a containment or wind wall at least three (3) feet above the highest removal point has been constructed and measures have been taken by the contractor to keep wind velocities within the containment or glovebag area below fifteen (15) miles per hour, as measured by an anemometer to be available at the job site at all times.

SUBCHAPTER 19. VARIANCES

380:50-19-1. Request for variance

Any request for variance from this Chapter shall be in writing. The basis for the variance must be included in the request, as well as steps to be taken by the asbestos contractor to ensure that the intent of the regulations will be fully complied with. Any variance granted will be on its own merits and may not be used to justify any future similar variance.

SUBCHAPTER 21. NON-FRIABLE ASBESTOS-CONTAINING MATERIAL PROCEDURES [REVOKED]

380:50-21-1. Non-regulated, non-friable asbestos procedures [REVOKED]

~~Recommended procedures for abatement of non-regulated, non-friable asbestos are as follows:~~
(1) ~~Asbestos cement that has not deteriorated to the point that it has become friable, or is not considered to be regulated asbestos-containing material (RACM), is not regulated under these rules. For the protection of employees and the public, these procedures are recommended:~~

~~(A) Employees should wear MSHA/NIOSH-approved respiratory protection.~~

~~(B) At a minimum, keep the material wet during removal. A garden hose with a fine spray may be used. A better method would be to use a suitable lock-down encapsulant.~~

~~(C) Remove the material carefully, avoiding breakage. Should breakage occur, immediately spray the broken edges with a penetrating asbestos encapsulant, using a garden sprayer. Load and unload all asbestos-cement material by hand to avoid breakage. Soak loads thoroughly to keep them wet during transport.~~

~~(D) If the material can be kept constantly wet, it may be disposed of in an ordinary landfill.~~

~~(2) These recommended procedures do not apply to cutting or sawing asbestos-cement pipe and sheets. Processing these materials constitutes a potentially serious hazard. Use of these materials is vigorously discouraged by the Oklahoma Department of Labor.~~

380:50-21-2. Regulated, non-friable asbestos procedures [REVOKED]

~~Asbestos cement that has deteriorated to the point that it has become friable, or is considered to be regulated asbestos-containing material (RACM), is regulated under these rules. Abatement of such asbestos materials shall be performed in accordance with an approved project design.~~

SUBCHAPTER 23. MISCELLANEOUS FRIABLE ASBESTOS MATERIAL ABATEMENT PROCEDURES

380:50-23-2. Asbestos-containing duct tape abatement requirements

Because of the low potential hazard of removing asbestos-containing duct tape while wet, removal of this tape may be done using the following procedures:

- (1) The tape may be removed only by a licensed asbestos abatement contractor, using only licensed asbestos abatement workers. ~~Operation and Maintenance (O&M) contractors may also remove the tape provided their O&M programs are approved for such a procedure.~~
- (2) Workers shall wear a protective suit, gloves, and at a minimum, a full-face air purifying respirator. Workers may put on a clean disposable suit over the one being worn, and walk to the next area of tape to be removed. The outer suit may be removed during the work, and used repeatedly for walking either to other tape removal areas, or to a convenient shower at the end of the work period.
- (3) Tape on air handling equipment or ductwork may be removed only while the air handlers are off.
- (4) The tape may be removed only from areas that are unoccupied at the time and have critical barriers established.
- (5) The area under the tape is to be covered with a 6-mil **poly** drop cloth.
- (6) The tape is to be saturated with a wetting agent. Detergent-based residential type cleaning agents may be used.
- (7) The tape is to be peeled away and dropped into a properly labeled asbestos disposal bag.
- (8) The surface under the tape is to be cleaned with a cloth soaked in wetting agent, and the cloth then placed in the asbestos disposal bag.
- (9) The drop cloth is to be rolled or folded and placed in the asbestos disposal bag.
- (10) After drying, the area under the tape is to be sprayed or brushed with paint, varnish, shellac, or other sealant. Care should be taken with flammable sprays.
- ~~(11) The State Labor Department is to be notified at least three working days in advance of any asbestos-containing tape removal done under the terms of this Section:
 - (A) A prep inspection is not required unless ordered by **DOL** after the notification is received.
 - (B) Tape removal as a part of an approved **O&M** program or as a part of a standard asbestos abatement project does not require additional notification.~~
- (12) Passive air monitoring in the area after tape removal shall be done. Clearance levels shall be 0.01 fibers per cubic centimeter, or the background level, whichever is higher.

380:50-23-3. Asbestos-containing ceiling tile abatement procedures

Removal of friable asbestos-containing ceiling tile may be done using the following procedures.

~~Operation and Maintenance (O&M) Contractors may also remove these tiles, provided their O&M programs are approved for such a procedure.~~

- (1) All required Department of Labor notices and State Department of Environmental Quality **NESHAPS** notices must be filed with those agencies.
- (2) Prior to the start of the ceiling tile removal project, the Department of Labor must make an on-site inspection of the area to determine the applicability of these procedures. The inspector will determine at that time if electrical power above the ceiling grid must be de-activated.
- (3) All air handler units (heaters, air-conditioners, blowers) must be turned off.
- (4) The ceiling tile removal may only be done when the work area is not occupied.
- (5) All movable items must be removed from the room.
- (6) Decontamination facilities must be established, but need not be contiguous with the tile removal area provided:
 - (A) Workers can travel to the facilities without endangering the general public or the environment.
 - (B) Workers are thoroughly **HEPA** vacuumed and wear a clean protective suit over the existing suit.
- (7) Critical barriers must be erected.
- (8) Workers must wear protective full body coveralls and full-face respirators.
- (9) Negative air machines in the tile removal area must be installed, vented internally, and provide a minimum of one air change each 30 minutes. A 6-mil **poly** drop cloth must be used under the work teams, in case a tile falls.
- (10) Workers shall work in teams, with one worker removing and bagging tiles, and one worker holding a **HEPA** vacuum near the grid.
- (11) Tiles must be placed in 6-mil asbestos-marked bags, sealed with duct tape. This bag must be placed in a second bag for transport.
- (12) The tiles must be disposed of in an approved asbestos landfill, and copies of waste shipment records provided to the Department of Labor.
- (13) The grid shall be **HEPA** vacuumed and wet wiped.
- (14) Air monitoring tests must be run in accordance with Subchapter 11 of these rules.