

MINNESOTA RULES 2011

97

CHAPTER 4620 DEPARTMENT OF HEALTH CLEAN INDOOR AIR

MINNESOTA CLEAN INDOOR AIR ACT			
4620.0050	SCOPE AND PURPOSE.	4620.3571	REMOVAL OF ASBESTOS-CONTAINING MATERIAL.
4620.0100	DEFINITIONS.	4620.3572	ENCAPSULATION OF ASBESTOS-CONTAINING MATERIAL.
4620.0500	SIGNS.	4620.3573	PERMANENT ENCLOSURE REQUIREMENTS.
4620.0955	OFFICES, FACTORIES, WAREHOUSES, OR SIMILAR PLACES OF WORK.	4620.3575	COMPLETION OF ABATEMENT.
4620.1440	COMPLIANCE.	4620.3580	GLOVE BAG PROCEDURES.
4620.1450	VARIANCE TO CLEAN INDOOR AIR RULES.	4620.3581	MINI-CONTAINMENT PROCEDURES.
		4620.3582	REMOVAL OF ENTIRE FACILITY COMPONENTS.
		4620.3585	DEMOLITION BY DESTRUCTION TO THE GROUND.
		4620.3592	INDOOR AIR MONITORING.
		4620.3594	CLEARANCE AIR SAMPLING.
		4620.3596	GENERAL REQUIREMENTS FOR AIR MONITORING.
		4620.3597	PHASE CONTRAST MICROSCOPY.
		4620.3598	TRANSMISSION ELECTRON MICROSCOPY.
		4620.3702	APPLICATION FOR TRAINING COURSE PERMIT.
		4620.3704	PERMITTING TRAINING COURSES.
		4620.3708	TRAINING COURSE DIPLOMAS.
		4620.3710	ADVANCE NOTICE AND AMENDMENTS.
		4620.3712	ATTENDANCE REQUIREMENTS.
		4620.3714	ENROLLMENT LIMITS.
		4620.3716	TRAINING COURSE CONDITIONS.
		4620.3718	COURSE CONTENT AND LENGTH.
		4620.3720	RECORD KEEPING FOR TRAINING COURSE PROVIDERS.
		4620.3722	TRAINING COURSE APPROVAL BEFORE JULY 1, 1996.
		4620.3724	VARIANCE.
			ENCLOSED SPORTS ARENAS
		4620.3900	APPLICATION.
		4620.4000	DEFINITIONS.
		4620.4100	RESURFACING MACHINES.
		4620.4200	APPLICATIONS FOR CERTIFICATE.
		4620.4300	DOCUMENTATION OF AIR QUALITY CONDITIONS.
		4620.4400	MAINTENANCE OF AIR QUALITY CONDITIONS.
		4620.4500	MEASUREMENT OF AIR QUALITY CONDITIONS.
		4620.4600	FAILURE TO MAINTAIN AIR QUALITY.
		4620.4700	OTHER INTERNAL COMBUSTION ENGINES.
		4620.4800	REVOCATION OR SUSPENSION OF APPROVAL; REINSTATEMENT.
		4620.4900	VARIANCE TO ENCLOSED SPORTS ARENA RULES.

MINNESOTA CLEAN INDOOR AIR ACT

4620.0050 SCOPE AND PURPOSE.

Parts 4620.0050 to 4620.1450 must be read in conjunction with the Minnesota Clean Indoor Air Act, Minnesota Statutes, sections 144.411 to 144.417.

Nothing in parts 4620.0050 to 4620.1450 shall be construed to affect smoking prohibitions imposed by the fire marshal or other laws, ordinances, or regulations or to affect the right of building owners or operators to designate their premises as smoke-free.

Statutory Authority: *MS s 144.411 to 144.417*

History: *19 SR 1128; 27 SR 407*

4620.0100 CLEAN INDOOR AIR

98

4620.0100 DEFINITIONS.

Subpart 1. **Scope.** For the purpose of parts 4620.0050 to 4620.1450, the terms in this part have the meanings given them.

Subp. 2. [Repealed, 33 SR 1771]

Subp. 3. [Repealed, 19 SR 1128]

Subp. 4. [Repealed, 33 SR 1771]

Subp. 4a. [Repealed, 33 SR 1771]

Subp. 5. [Repealed, 33 SR 1771]

Subp. 6. [Repealed, 19 SR 1128]

Subp. 7. [Repealed, 19 SR 1128]

Subp. 8. [Repealed, 33 SR 1771]

Subp. 9. [Repealed, 33 SR 1771]

Subp. 10. [Repealed, 33 SR 1771]

Subp. 11. **Place of employment.** "Place of employment" has the meaning given in Minnesota Statutes, section 144.413.

Subp. 11a. [Repealed, 33 SR 1771]

Subp. 12. [Repealed, 33 SR 1771]

Subp. 13. **Proprietor.** "Proprietor" means the party, regardless of whether the party is owner or lessee of the public place, who ultimately controls, governs, or directs the activities within the public place. The term does not mean the owner of the property unless the owner ultimately controls, governs, or directs the activities within the public place. The term "proprietor" may apply to a corporation as well as an individual.

Subp. 14. **Public conveyance.** "Public conveyance" means any air, land, or water vehicle used for the transportation of persons whether or not for compensation, including but not limited to airplanes, trains, buses, boats, and taxis. The term includes vans and trucks which may be used to transport persons to, from, and during work or jury duty and those which serve as a place of work, for example, locomotives, police vehicles, or fire vehicles. The term does not include privately owned vehicles when used for private purposes.

Subp. 14a. **Public meeting.** "Public meeting" has the meaning given in Minnesota Statutes, section 144.413.

Subp. 14b. **Public place.** "Public place" has the meaning given in Minnesota Statutes, section 144.413.

Subp. 15. [Repealed, 33 SR 1771]

Subp. 16. [Repealed, 33 SR 1771]

Subp. 16a. [Repealed, 33 SR 1771]

Subp. 17. **Room.** "Room" means any indoor area bordered on all sides by a floor to ceiling wall. The sides must be continuous and solid except for closeable doors for entry and exit.

Statutory Authority: *MS s 14.388; 31.101; 31.11; 144.05; 144.08; 144.12; 144.411 to 144.417; 157.011*

History: *17 SR 1279; 19 SR 1128; 23 SR 519; 27 SR 407; 33 SR 1771*

4620.0200 [Repealed, 19 SR 1128]

4620.0300 [Repealed, 33 SR 1771]

4620.0400 [Repealed, 33 SR 1771]

4620.0500 SIGNS.

Subpart 1. [Repealed, 33 SR 1771]

Subp. 2. **Statement on signs.** All signs used to identify a location where the responsible person prohibits smoking in an entire public place, place of employment, or public meeting must use the statement, "No smoking is permitted in this entire establishment" or a similar statement. If smoking is permitted anywhere within a public place, place of employment, or at a public meeting, the sign must state, "Smoking is prohibited except in designated areas." All signs used to identify a smoking-permitted area must use the words "smoking permitted" or the international smoking symbol, or both. Signs that are used to identify a nonsmoking area must use the words "no smoking" or the international no-smoking symbol, or both.

Subp. 3. **Placement of sign.** Signs must be conspicuously posted on or immediately inside of all outside entrances to the public place, place of employment, or public meeting. All signs used to identify smoking-permitted and nonsmoking areas must be placed at a height and location easily seen by a person in the establishment and must not be obscured in any way.

The boundary between an acceptable nonsmoking area and a smoking-permitted area must be clearly designated so a person can differentiate between the two areas.

Subp. 4. **Size of lettering.** Signs used to designate acceptable nonsmoking and smoking-permitted areas must use printed letters of not less than 0.5 inches (1.3 centimeters) in height. Whenever either of the international symbols is used, the diameter of the outer circle must not be less than three inches.

Subp. 5. [Repealed, 33 SR 1771]

Subp. 6. [Repealed, 33 SR 1771]

Statutory Authority: *MS s 14.388; 144.411 to 144.417*

History: *17 SR 1279; 19 SR 1128; 27 SR 407; 33 SR 1771*

4620.0600 [Repealed, 33 SR 1771]

4620.0700 [Repealed, 27 SR 407]

4620.0750 [Repealed, 33 SR 1771]

4620.0800 [Repealed, 19 SR 1128]

4620.0900 [Repealed, 19 SR 1128]

4620.0950 MR 2001 [Expired]

4620.0955 OFFICES, FACTORIES, WAREHOUSES, OR SIMILAR PLACES OF WORK.

Subpart 1. [Repealed, 33 SR 1771]

Subp. 2. **Smoking-permitted area requirements.**

A. A smoking-permitted area in an office or a factory, warehouse, or similar place of work must be designed and operated according to items B to E. Documentation of items B to E must be made available to the commissioner upon request.

B. The area must be maintained at a negative pressure with respect to adjacent or connected nonsmoking areas, as verified by a professional engineer licensed in the state or an individual certified by the National Environmental Balancing Bureau or the American Air Balance Council. The commissioner shall accept documentation of a negative pressure relationship that has been verified within the previous 12 months, provided changes affecting the operation of the ventilation system have not been made.

C. Air from a smoking-permitted area must not be recirculated into a nonsmoking area.

D. Air from the smoking-permitted area must be exhausted directly to the outdoors.

4620.0955 CLEAN INDOOR AIR

100

E. The area must be equipped with one of the following:

(1) a continuous physical barrier with closed doors, except to permit necessary ingress and egress, that separates the smoking-permitted area from adjacent or connected nonsmoking areas; or

(2) an air distribution system that is designed and operated to ensure a unidirectional airflow from adjacent or connected nonsmoking areas into the smoking-permitted area, as verified by an individual certified by the National Environmental Balancing Bureau or the Associated Air Balance Council. The commissioner shall accept documentation of unidirectional airflow that has been verified within the previous 12 months, provided changes affecting the operation of the ventilation system have not been made.

Subp. 3. **Effective date.** This part is effective September 23, 2003.

Statutory Authority: *MS s 144.417*

History: *27 SR 407; 33 SR 1771*

4620.0975 MR 2001 [Expired]

4620.1000 [Repealed, 33 SR 1771]

4620.1025 [Repealed, 33 SR 1771]

4620.1100 [Repealed, 33 SR 1771]

4620.1200 [Repealed, 33 SR 1771]

4620.1300 [Repealed, 33 SR 1771]

4620.1400 [Repealed, 33 SR 1771]

4620.1425 [Repealed, 33 SR 1771]

4620.1440 COMPLIANCE.

The proprietor must comply with parts 4620.0050 to 4620.1450.

Statutory Authority: *MS s 14.388; 144.417*

History: *27 SR 407; 33 SR 1771*

4620.1450 VARIANCE TO CLEAN INDOOR AIR RULES.

The commissioner shall grant variances to parts 4620.0100 to 4620.1450 only according to the procedures and criteria specified in parts 4717.7000 to 4717.7050.

Statutory Authority: *MS s 14.05; 14.388; 144.417*

History: *15 SR 1597; 27 SR 407; 33 SR 1771*

4620.1500 [Repealed, L 1995 c 165 s 17]

4620.1600 [Repealed, L 1985 c 216 s 1]

4620.1700 [Repealed, L 1985 c 216 s 1]

FORMALDEHYDE IN HOUSING UNITS

4620.1800 MAXIMUM PERMISSIBLE FORMALDEHYDE LEVEL IN HOUSING UNITS.

At the time of sale of a newly constructed housing unit, the ambient indoor air of any habitable room in the unit shall not contain more than 0.4 parts of formaldehyde per million parts of air as measured according to the procedures specified in parts 4620.1900 and 4620.2000. The seller is responsible for assuring that the unit complies with this level.

The installation of urea formaldehyde foam insulation in a housing unit which is not newly constructed shall not cause the indoor level of formaldehyde in any habitable room in the unit to exceed the higher of 0.4 parts per million or the preinstallation level as measured

according to the procedures specified in parts 4620.1900 to 4620.2100. The installer of urea formaldehyde foam insulation is responsible for assuring that the installation complies with this level.

The commissioner shall grant a variance to this part only according to the procedures and criteria specified in parts 4717.7000 to 4717.7050.

Statutory Authority: *MS s 14.05; 144.495*

History: *9 SR 1576; 15 SR 1597*

4620.1900 [Repealed, L 1985 c 216 s 1]

4620.2000 [Repealed, L 1985 c 216 s 1]

4620.2100 [Repealed, L 1985 c 216 s 1]

ASBESTOS ABATEMENT

4620.3000 APPLICABILITY.

Parts 4620.3000 to 4620.3724 apply to persons performing asbestos-related work.

Statutory Authority: *MS s 144.05; 144.122; 326.70 to 326.81*

History: *13 SR 568; 20 SR 2765*

4620.3100 DEFINITIONS.

Subpart 1. **Scope.** For the purpose of parts 4620.3000 to 4620.3724, the following terms have the meanings given them.

Subp. 1a. **Abatement.** "Abatement" means the performance of asbestos-related work, other than air monitoring, in the quantities specified in Minnesota Statutes, section 326.71, subdivision 4. Abatement includes area preparation, containment removal, and cleanup.

Subp. 2. [Repealed, 20 SR 2765]

Subp. 2a. **Adequately wet.** "Adequately wet" means mixed or penetrated with liquid to prevent the release of particulates.

Subp. 2b. **Air quality monitoring.** "Air quality monitoring" is limited to the activities associated with the set up, calibration, collection, and documentation of the air samples that determine fiber concentrations as required under parts 4620.3570 and 4620.3592 to 4620.3598.

Subp. 2c. **Alternative clearance standard.** "Alternative clearance standard" means the asbestos concentration of 70 structures per square millimeter (70 s/mm²) of filter surface when the clearance air samples are analyzed by transmission electron microscopy according to part 4620.3598.

Subp. 2d. **Alternative indoor air standard.** "Alternative indoor air standard" means the maximum permissible fiber concentration in the air established according to part 4620.3597.

Subp. 2e. **Area preparation.** "Area preparation" means:

A. the construction of a decontamination unit under parts 4620.3569; 4720.3580, subpart 2; and 4620.3581, subpart 3;

B. the installation of a HEPA-filtered negative pressure system under part 4620.3570; and

C. the performance of any activities required by parts 4620.3580, subpart 4, items A, B, D, E, G, and H; 4620.3581, subpart 4, item A; 4620.3582, subpart 3, item A; 4620.3566; 4620.3567; and 4620.3568.

Subp. 3. **Asbestos.** "Asbestos" has the meaning given in Minnesota Statutes, section 326.71, subdivision 2.

Subp. 4. **Asbestos contractor.** "Asbestos contractor" means a person who conducts asbestos-related work and includes persons who perform in-house asbestos-related work using their own employees.

Subp. 5. **Asbestos project plan.** "Asbestos project plan" means the written plan described in part 4620.3560.

Subp. 5a. **Asbestos site supervisor.** "Asbestos site supervisor" means an individual who is certified under part 4620.3310.

Subp. 5b. **Asbestos work area.** "Asbestos work area" means an area established by the person performing asbestos-related work, where airborne concentrations of asbestos exceed or can reasonably be expected to exceed 0.01 fibers per cubic centimeter (f/cc) or the alternative indoor air standard established according to parts 4620.3594 to 4620.3598.

Subp. 6. **Asbestos worker.** "Asbestos worker" means any individual certified under part 4620.3300.

Subp. 7. **Asbestos-containing material or ACM.** "Asbestos-containing material or ACM" has the meaning given in Minnesota Statutes, section 326.71, subdivision 3.

Subp. 7a. **Asbestos inspection.** "Asbestos inspection" means an activity undertaken by visual or physical examination to determine the presence, the location, or to assess the condition of friable or nonfriable asbestos-containing material or suspected asbestos-containing material. Asbestos inspection includes reinspection of known asbestos-containing material or assumed asbestos-containing material. Asbestos inspection does not include:

A. the periodic surveillance performed under Code of Federal Regulations, title 40, chapter I, subchapter R, part 763, subpart E, section 763.92, paragraph (b), amended through February 3, 1994;

B. an inspection performed by an employee or agent of the federal, state, or local government solely for the purpose of determining compliance with applicable statutes or rules; and

C. visual inspections of the type described in parts 4620.3560 to 4620.3598 solely for the purpose of determining completion of asbestos-related work.

Subp. 7b. **Asbestos inspector.** "Asbestos inspector" is an individual as defined in Minnesota Statutes, section 326.71, subdivision 4a, and who is certified under part 4620.3330.

Subp. 7c. **Asbestos management plan.** "Asbestos management plan," as specified in part 4620.3470, means a site-specific written plan for:

A. the maintenance of asbestos-containing material in a condition that prevents the release of asbestos fibers; and

B. response procedures for an asbestos fiber release episode.

Subp. 7d. **Asbestos management planner.** "Asbestos management planner" is an individual as defined in Minnesota Statutes, section 326.71, subdivision 4c, and who is certified under part 4620.3340.

Subp. 7e. **Asbestos project design.** "Asbestos project design" as specified in part 4620.3480, means site-specific written project specifications for an asbestos-related work project. Written technical project specifications incorporated into bidding documents are also considered project design.

Subp. 7f. **Asbestos project designer.** "Asbestos project designer" is an individual as defined in Minnesota Statutes, section 326.71, subdivision 4d, and who is certified under part 4620.3350.

Subp. 8. **Asbestos-related work.** "Asbestos-related work" has the meaning given in Minnesota Statutes, section 326.71, subdivision 4.

Subp. 9. [Repealed, 20 SR 2765]

Subp. 10. [Repealed, 20 SR 2765]

Subp. 10a. **Clearance standard.** "Clearance standard" means the maximum permissible fiber concentration in the air within an asbestos work area following completion of abatement. The clearance standard is 0.01 fibers per cubic centimeter of air (f/cc) when analyzed by phase contrast microscopy according to part 4620.3597, subparts 1, 3, and 4.

Subp. 11. **Commissioner.** "Commissioner" means the commissioner of health.

Subp. 11a. **Containment.** "Containment" means the structure which must be constructed as specified in part 4620.3568 around the asbestos work area.

Subp. 12. [Repealed, 20 SR 2765]

Subp. 13. **Contracting entity.** "Contracting entity" has the meaning given in Minnesota Statutes, section 326.71, subdivision 6.

Subp. 14. **Critical barriers.** "Critical barriers" means the barriers constructed to separate and isolate the asbestos work area from the rest of the facility and the outdoors, including the barriers constructed over doors, windows, and air passageways.

Subp. 14a. **Demolition.** "Demolition," with respect to a facility, means the:

A. wrecking or taking out of any load-supporting structural member of the facility together with any related handling operations; or

B. intentional burning of the facility.

Subp. 15. [Repealed, 20 SR 2765]

Subp. 16. **Emergency project.** "Emergency project" means a project which was not planned but results from a sudden, unexpected event whose consequences, if not immediately attended to, present either a safety or public health hazard or would damage the facility or facility components. This includes work required by nonroutine failures of equipment.

Subp. 17. [Repealed, 20 SR 2765]

Subp. 18. [Repealed, 20 SR 2765]

Subp. 19. **Encapsulation.** "Encapsulation" refers to a method of asbestos abatement that is sometimes chosen as an alternative to asbestos removal, and means the treatment of asbestos containing building materials with a sealant material that surrounds or embeds asbestos fibers in an adhesive matrix to prevent the release of fibers. A bridging encapsulant creates a membrane over the surface. A penetrating encapsulant penetrates the material and binds its components together.

Subp. 20. **Enclosure.** "Enclosure" refers to a method of asbestos abatement that is sometimes chosen as an alternative to asbestos removal, and means construction of permanent, airtight, impermeable walls, ceilings, and floors around asbestos containing material to prevent the release of asbestos fibers into the air.

Subp. 20a. **Facility.** "Facility" means any:

A. institutional, commercial, public, industrial, or residential structure, building, or installation, including any structure, building, or installation containing condominiums or individual dwelling units operated as a residential cooperative; or

B. ship at dock in Minnesota.

Subp. 20b. **Facility component.** "Facility component" means any part of a facility including equipment.

Subp. 21. **Friable asbestos material.** "Friable asbestos material" means any material containing more than one percent asbestos by microscopic visual estimation by area, that hand pressure can crumble, pulverize, or reduce to powder when dry. Friable asbestos material includes previously nonfriable asbestos material which becomes damaged to the extent that when dry all or a portion of the material may be crumbled, pulverized, or reduced to powder by hand pressure.

Subp. 22. [Repealed, 20 SR 2765]

Subp. 23. **Glove bag.** "Glove bag" means a bag, fitted with arms, through which limited types of asbestos-related work may be performed, as allowed in part 4620.3580.

Subp. 24. **High efficiency particulate air (HEPA) filter.** "High efficiency particulate air (HEPA) filter" means a filter capable of trapping and retaining at least 99.97 percent of all monodispersed particles 0.3 microns in diameter or larger.

Subp. 24a. **Homogeneous area.** "Homogeneous area" means an area of surfacing materials, thermal system insulation materials, flooring, or other miscellaneous materials which upon examination for properties such as age, color, and texture appear to be composed of the same material.

Subp. 24b. **Indoor air standard.** "Indoor air standard" means the maximum permissible fiber concentration in the air outside of the asbestos work area during asbestos-related work. The indoor air standard is 0.01 fibers per cubic centimeter of air (f/cc) when analyzed by phase contrast microscopy according to part 4620.3597, unless an alternative indoor air standard has been established.

Subp. 25. **Industrial facility.** "Industrial facility" means a facility in an industry classified in the Standard Industrial Classification Manual, 1987 edition, published by the Office of Management and Budget, within Major Groups 20 to 39, 46, and 49. This document is not subject to frequent change, is incorporated by reference, and is available at the State Law Library, Minnesota Judicial Center, 25 Rev. Dr. Martin Luther King Jr. Blvd., Saint Paul, Minnesota 55155.

Subp. 25a. **Installation.** "Installation" means any building or structure or any group of buildings or structures at a single demolition or renovation site that are under the control of the same owner or operator as described in Code of Federal Regulations, title 40, chapter I, subchapter R, part 61, subpart M, section 61.141, amended through July 1, 1994.

Subp. 25b. **Maintenance or maintenance activity.** "Maintenance" or "maintenance activity" means any encapsulation, enclosure, or removal of asbestos-containing material on or around a mechanical system or machinery to sustain the operating condition of the mechanical system or machinery. Maintenance or maintenance activity does not include any encapsulation to return damaged, previously encapsulated ACM to an undamaged condition or to an intact state to prevent fiber release.

Subp. 26. [Repealed, 20 SR 2765]

Subp. 27. **Occupied area immediately adjacent to an asbestos work area.** "Occupied area immediately adjacent to an asbestos work area" is a designation used during an asbestos-related work project and means an indoor space which:

- A. is not considered part of the asbestos work area;
- B. shares a wall, floor, or ceiling with the asbestos work area or shares a window, door, or similar opening to a room temporarily considered the asbestos work area; and
- C. is occupied by individuals not involved in asbestos-related work.

Subp. 27a. **Person.** "Person" has the meaning given in Minnesota Statutes, section 326.71, subdivision 8.

Subp. 27b. **Project.** "Project" means:

- A. the area preparation, enclosure, removal, or encapsulation operations and air quality monitoring of asbestos-containing material in a quantity that meets or exceeds 260 linear feet of friable asbestos-containing material on pipes, 160 square feet of friable asbestos-containing material on other facility components, or if linear feet or square feet cannot be measured, a total of 35 cubic feet of friable asbestos-containing material on or off all facility components in one facility. The removal, enclosure, or encapsulation described in this item may not be subdivided to fall below the quantity specified in this item. In single-family residences and residential buildings with no more than four dwelling units, asbestos-containing materials excluded from this definition are floor tiles and sheeting, roofing materials, siding, and all ceilings with asbestos-containing material;

B. a series of activities, excluding maintenance activity, which individually consist of area preparation and the enclosure, removal, or encapsulation operations and air quality monitoring of asbestos-containing material in quantities less than the quantities specified in item A where the total quantity of asbestos-containing material enclosed, removed, or encapsulated during a calendar year meets or exceeds the quantities specified in item A in that facility;

C. a series of maintenance activities where the contracting entity has predicted that the additive quantity of maintenance during a calendar year will exceed 260 linear feet, 160 square feet, or 35 cubic feet in a facility during the calendar year; or

D. a small residential abatement.

Subp. 28. **Renovation.** "Renovation" means altering in any way one or more facility components. In asbestos-related work renovation includes the enclosure, removal, or encapsulation of friable asbestos-containing material.

Subp. 29. **Responsible individual.** "Responsible individual" means one who has the authority to represent the asbestos contractor in all matters related to the asbestos contractor license and is certified as a site supervisor under part 4620.3310.

Subp. 30. [Repealed, 20 SR 2765]

Subp. 31. **Small residential abatement.** "Small residential abatement" means any asbestos-related work performed in a single- or multifamily residence where the quantity of asbestos-containing material to be enclosed, removed, or encapsulated is greater than ten but less than 260 linear feet of friable asbestos-containing material on pipes or ducts or greater than six but less than 160 square feet of friable asbestos-containing material on other facility components.

A. The asbestos-related work described in this subpart may not be subdivided to fall below the quantities specified in this subpart.

B. Small residential abatement in single-family residences and residential buildings with no more than four dwelling units does not include work on floor tiles and sheeting, roofing materials, siding, and all ceilings with asbestos-containing materials.

Subp. 32. **Training course.** "Training course" means a course of instruction for an asbestos worker, asbestos site supervisor, asbestos inspector, asbestos management planner, asbestos project designer, or an individual who performs asbestos air monitoring.

Subp. 33. **Tunnel.** "Tunnel" means a below-grade corridor or crawl space which is not used for:

A. a human thoroughfare; or

B. an air plenum for any ventilation system.

Subp. 34. **Verifiable evidence.** "Verifiable evidence" means a signed statement verifying that the applicant has completed a training course or a refresher course. The statement may be provided in hard copy or electronic form or may be other electronic evidence such as an excerpt from a database. The statement or electronic evidence must be submitted by the provider of a training course, or by a government agency in another state charged with certifying or licensing asbestos workers if the course was taken in another state.

Statutory Authority: *MS s 144.05; 144.122; 326.70 to 326.81*

History: *13 SR 568; 20 SR 2765; 33 SR 739*

4620.3200 CONTRACTOR LICENSURE.

Subpart 1. [Repealed, 20 SR 2765]

Subp. 2. **Application for license.** An applicant for an asbestos contractor license must submit to the commissioner:

A. a completed application on a form provided by the commissioner, which seeks only information the commissioner reasonably considers necessary to identify the applicant

and to determine whether the applicant meets the statutory and regulatory requirements for licensure;

B. a nonrefundable application fee of \$100, which is not in the form of a personal check, payable to the Minnesota Department of Health;

C. the name, address, Social Security number, and signature of the responsible individual as defined in part 4620.3100, subpart 29; and

D. the asbestos contractor's Minnesota business identification number.

Subp. 2a. **Workers' compensation.** As part of the contractor license application, the applicant must provide:

A. evidence of workers' compensation insurance as required by Minnesota Statutes, section 176.182; or

B. if the applicant is not liable to pay compensation under Minnesota Statutes, chapter 176, the applicant must submit a letter to the commissioner, signed and dated, stating why the applicant is not liable.

Subp. 3. **Denial of asbestos contractor license application.** The commissioner shall deny an application for an asbestos contractor license if the applicant fails to comply with the requirements of subparts 2, 2a, and 4a. Additional grounds for the commissioner to deny an application are stated in Minnesota Statutes, section 144.99, subdivision 8, paragraph (a) or (b). An applicant:

A. must be notified in writing of the denial of the license application and reasons for the denial; and

B. is not required to pay a second fee if the applicant submits a second asbestos contractor application according to subpart 2, within 30 days of the receipt of notice that the asbestos contractor license application has been denied. Fees are required for all subsequent applications.

Subp. 4. **Terms of licensure.** An asbestos contractor license is effective for one year unless it is revoked or suspended by the commissioner. An asbestos contractor license is not transferable.

Subp. 4a. **Responsible individual.** A licensed asbestos contractor must at all times have a responsible individual who represents the asbestos contractor. If the responsible individual identified on the current asbestos contractor license no longer serves in that capacity, the contractor, within ten days of the change in the responsible individual, must provide a statement to the commissioner identifying and signed by the new responsible individual and stating the date when that individual assumed the duties of the responsible individual.

Subp. 5. **Annual license renewal.** If a contractor wants to renew the asbestos contractor license, the contractor must submit a completed application under subpart 2 that is received by the commissioner by the expiration date on the existing asbestos contractor license.

Subp. 6. [Repealed, 20 SR 2765]

Subp. 7. [Repealed, 20 SR 2765]

Subp. 8. **Procedures for obtaining duplicate license.** The commissioner shall issue a duplicate asbestos contractor license to replace a lost, destroyed, or mutilated license if the licensee submits a completed application for a duplicate license and pays a charge to the commissioner for the cost of duplicating the license.

Subp. 9. **Subcontractors.** A subcontractor who performs asbestos-related work must hold a valid asbestos contractor license.

Statutory Authority: *MS s 16A.1285; 144.05; 144.122; 326.70 to 326.81*

History: *13 SR 568; 20 SR 2765; 33 SR 739*

4620.3250 USE OF QUALIFIED INDIVIDUALS.

Subpart 1. **Qualified individuals.** Qualified individuals must be used to perform asbestos-related work.

A. An asbestos contractor must employ only asbestos workers and site supervisors with current certificates issued by the commissioner to conduct asbestos-related work.

B. An asbestos contractor must ensure that a current asbestos worker certificate or asbestos site supervisor certificate for each individual engaged in asbestos-related work is readily available at the work site for review by the commissioner, except as provided in parts 4620.3300, subpart 5, item A, and 4620.3310, subpart 6, item A.

Subp. 2. **Required work site personnel.**

A. An asbestos contractor must ensure that a certified asbestos site supervisor is present at the work site during all times when asbestos-related work is performed.

B. If the asbestos contractor is only performing air quality monitoring, then that asbestos contractor must ensure that:

(1) a certified site supervisor is present at the work site during all times that air quality monitoring is being performed; or

(2) a certified asbestos worker is present at the work site during all times that air quality monitoring is being performed.

C. The asbestos worker under item B, subitem (2), must be able to immediately contact a certified site supervisor of the asbestos contractor performing the air quality monitoring.

D. If requested, the certified site supervisor must be present at the work site within two hours after being contacted.

Statutory Authority: *MS s 326.78*

History: *33 SR 739*

4620.3300 CERTIFICATION OF ASBESTOS WORKER.

Subpart 1. **Certification of asbestos worker required.** An individual who performs asbestos-related work must be certified by the commissioner as an asbestos worker under this part unless that individual is certified as an asbestos site supervisor.

Subp. 2. **Qualifications or experience requirements.** To be eligible for certification as an asbestos worker, an individual must have completed either:

A. two years full-time attendance, or the part-time equivalent, in an apprenticeship program for general commercial construction trades which is either approved by the Minnesota Department of Labor and Industry, Division of Voluntary Apprenticeship, or registered with the United States Department of Labor, Bureau of Apprenticeship and Training;

B. two years of postsecondary education with an emphasis in construction management, industrial hygiene, industrial technology safety, or physical or life science, and completed an Occupational Safety and Health Administration's (OSHA) 510 Occupational Safety and Health Standards for the construction industry course;

C. a vocational training program in a construction-related discipline of not less than 18 months; or

D. work experience of at least 1,000 hours of work experience in general commercial construction trades.

Subp. 3. **Training requirements for initial certification.** To be eligible for initial certification as an asbestos worker:

A. an applicant must complete before the commissioner's receipt of the application, an initial asbestos worker training course that is:

(1) permitted by the commissioner under part 4620.3704;

(2) approved by the United States Environmental Protection Agency (EPA) with the EPA approval granted after June 1, 1987; or

(3) approved by a state asbestos training program accredited by the EPA; and

B. an applicant must complete, before the commissioner's receipt of the application, an asbestos worker refresher course permitted by the commissioner under part 4620.3704 if the applicant has completed an initial asbestos worker training course specified in item A, subitem (2) or (3).

Subp. 3a. **Training diploma expiration; retraining.** The applicant for certification as an asbestos worker must complete an annual asbestos worker refresher course permitted by the commissioner under part 4620.3704 when the diploma from an initial worker training course, as specified in subpart 3, item A, has expired before the commissioner's receipt of the application.

A. The most recent asbestos worker refresher course taken must be permitted by the commissioner under part 4620.3704.

B. Any refresher courses completed subsequent to the expiration of the diploma must have been completed no more than 12 months after the expiration date of the preceding diploma.

Subp. 4. **Application for initial asbestos worker certification.** An applicant for initial certification as an asbestos worker must submit to the commissioner:

A. a completed application on a form provided by the commissioner, which seeks only information the commissioner reasonably considers necessary to identify the applicant and to determine whether the applicant meets the statutory and regulatory requirements for certification;

B. a nonrefundable application fee of \$50, which is not in the form of a personal check, payable to the Minnesota Department of Health; and

C. verifiable evidence of the applicant's original diploma for the initial asbestos worker training course completed and, if applicable, verifiable evidence of each of the applicant's original diplomas for the asbestos worker refresher training courses completed.

Subp. 5. **Renewal.**

A. An individual certified as an asbestos worker must apply for renewal of the asbestos worker certification by submitting to the commissioner a completed renewal application. Until the renewal certificate is issued by the commissioner, the asbestos worker may continue to perform asbestos-related work for up to 30 calendar days from the date of completing the refresher training course, provided the asbestos worker:

(1) has submitted the certification renewal application to the commissioner; and

(2) has a copy of the diploma, which is issued after completing an asbestos worker refresher course, on site and available for review by the commissioner.

B. The renewal application must include:

(1) the completed renewal application on a form provided by the commissioner, which seeks only information the commissioner reasonably considers necessary to identify the applicant and to determine whether the applicant meets the statutory and regulatory requirements for renewal of certification;

(2) a nonrefundable renewal application fee of \$50, which is not in the form of a personal check, payable to the Minnesota Department of Health; and

(3) verifiable evidence of the training course diploma from the most recent asbestos worker refresher training course required by subpart 3a.

Subp. 6. **Denial of asbestos worker certification.** The commissioner shall deny an application for asbestos worker certification if the applicant fails to comply with all applicable requirements in this part. Additional grounds for the commissioner to deny an

application are stated in Minnesota Statutes, section 144.99, subdivision 8, paragraphs (a) and (b). An applicant:

A. must be notified in writing of the denial of the certificate and the reasons for the denial; and

B. is not required to pay a second fee if the applicant submits a second asbestos worker certification application according to subpart 4 or 5 within 30 days of receipt of notice that the asbestos worker certification has been denied. Fees are required for all subsequent applications.

Subp. 7. **Duration of certificate; transfer.** An asbestos worker certificate issued by the commissioner is valid for one year after the completion date on the training course diploma for the most recently completed training course. The asbestos worker certificate is not transferable.

Subp. 8. **Duplicate certificate.** To replace a lost, destroyed, or mutilated asbestos worker certificate, the certified asbestos worker must submit a completed application for a duplicate asbestos worker certificate and pay a charge to the Minnesota Department of Health for the cost of duplicating the certificate.

Statutory Authority: *MS s 16A.1285; 144.05; 144.122; 326.70 to 326.81*

History: *13 SR 568; 20 SR 2765; 25 SR 1894; 33 SR 739*

4620.3310 CERTIFICATION OF ASBESTOS SITE SUPERVISOR.

Subpart 1. **Certification required.** An individual who supervises asbestos-related work or has the authority to act as the agent of the asbestos contractor at the asbestos work area must be certified as an asbestos site supervisor by the commissioner.

Subp. 2. **Qualifications or experience requirements.** To be eligible for certification as an asbestos site supervisor, an individual must have either:

A. work experience of at least 2,000 hours in asbestos-related work, safety, industrial hygiene, hazardous materials control, or other general commercial construction trades;

B. a bachelor's degree in architecture, engineering, physical or life science, and work experience of at least 500 hours in asbestos-related work, safety, industrial hygiene, hazardous materials control, or other general commercial construction trades;

C. a master's degree in environmental health, industrial hygiene, or safety; or

D. completion of an apprenticeship program within the general commercial construction trades that is either approved by the Minnesota Department of Labor and Industry, Division of Voluntary Apprenticeship, or registered with the United States Department of Labor, Bureau of Apprenticeship and Training.

Subp. 3. **Training requirements for initial certification.** To be eligible for initial certification as an asbestos site supervisor:

A. an applicant must complete, before the commissioner's receipt of the application, an initial asbestos site supervisor training course that is:

(1) permitted by the commissioner under part 4620.3704;

(2) approved by the United States Environmental Protection Agency (EPA) with the EPA approval granted after June 1, 1987; or

(3) approved by a state asbestos training program accredited by the EPA; and

B. an applicant must complete, before the commissioner's receipt of the application, an asbestos site supervisor refresher course permitted by the commissioner under part 4620.3704 if the applicant has completed an initial asbestos site supervisor training course specified in item A, subitem (2) or (3).

Subp. 4. **Training diploma expiration; retraining.** The applicant for certification as an asbestos site supervisor must complete an annual asbestos site supervisor refresher course permitted by the commissioner under part 4620.3704 when the diploma from an

initial site supervisor training course as specified in subpart 3, item A, has expired before the commissioner's receipt of the application.

A. The most recent asbestos site supervisor refresher course completed must be permitted by the commissioner under part 4620.3704.

B. Any refresher courses completed subsequent to the expiration of the diploma must have been completed no more than 12 months after the expiration date of the preceding diploma.

Subp. 5. **Initial certification application.** An applicant for initial certification as an asbestos site supervisor must submit to the commissioner:

A. a completed application on a form provided by the commissioner, which seeks only information the commissioner reasonably considers necessary to identify the applicant and to determine whether the applicant meets the statutory and regulatory requirements for certification;

B. a nonrefundable application fee of \$50, which is not in the form of a personal check, payable to the Minnesota Department of Health; and

C. verifiable evidence of the applicant's original diploma for the initial asbestos site supervisor training course completed and, if applicable, verifiable evidence of each of the applicant's original diplomas for the asbestos site supervisor refresher training courses.

Subp. 6. **Renewal.**

A. An individual certified as an asbestos site supervisor must apply for renewal of asbestos site supervisor certification by submitting to the commissioner a completed renewal application. Until the renewal certificate is issued by the commissioner, the asbestos site supervisor may continue to perform asbestos-related work for up to 30 calendar days from the date of completing the refresher course, provided the asbestos site supervisor:

(1) has submitted the certification renewal application to the commissioner; and

(2) has a copy of the diploma, which is issued after completing an asbestos site supervisor refresher course, on site and available for review by the commissioner.

B. The renewal application must include:

(1) the completed renewal application on a form provided by the commissioner, which seeks only information the commissioner reasonably considers necessary to identify the applicant and to determine whether the applicant meets the statutory and regulatory requirements for renewal of certification;

(2) a nonrefundable renewal application fee of \$50, which is not in the form of a personal check, payable to the Minnesota Department of Health; and

(3) verifiable evidence of the training course diploma from the most recent asbestos site supervisor refresher training course required by subpart 4.

Subp. 7. **Denial of certification.** The commissioner shall deny an application for an asbestos site supervisor if the applicant fails to comply with all applicable requirements in this part. Additional grounds for the commissioner to deny an application are stated in Minnesota Statutes, section 144.99, subdivision 8, paragraphs (a) and (b). An applicant:

A. must be notified in writing of the denial of the certificate and the reasons for the denial; and

B. is not required to pay a second fee if the applicant submits a second asbestos site supervisor application within 30 days of the receipt of the notice that the asbestos site supervisor application has been denied. Fees are required for all subsequent applications.

Subp. 8. **Duration of certificate; transfer.** An asbestos site supervisor certificate is valid for 12 months after the completion date on the diploma for the most recently completed training course. The asbestos site supervisor certificate is not transferable.

Subp. 9. **Duplicate certificate.** To replace a lost, destroyed, or mutilated asbestos site supervisor certificate, the certified asbestos site supervisor must submit a completed application for a duplicate asbestos site supervisor certificate and pay a charge to the Minnesota Department of Health for the cost of duplicating the certificate.

Statutory Authority: *MS s 16A.1285; 144.05; 144.122; 326.70 to 326.81*

History: *20 SR 2765; 25 SR 1894; 33 SR 739*

4620.3330 CERTIFICATION OF ASBESTOS INSPECTOR.

Subpart 1. **Certification required.** Beginning October 1, 1996, an individual who performs an asbestos inspection, as defined in part 4620.3100, must be certified by the commissioner as an asbestos inspector.

Subp. 2. **Qualifications and experience.** Beginning January 2, 1997, an individual applying for certification as an asbestos inspector must show evidence of either:

A. work experience of at least 500 hours in the field of building inspection, asbestos-related work, safety, industrial hygiene, or hazardous materials control;

B. completion of an apprenticeship program within the general commercial construction trades approved by the Minnesota Department of Labor and Industry, Division of Voluntary Apprenticeship, or registered with the United States Department of Labor, Bureau of Apprenticeship and Training;

C. licensure by Minnesota as a building official;

D. a bachelor's degree in architecture, engineering, industrial hygiene, industrial technology safety, or physical or life science, and 40 hours of on-site asbestos inspection experience accompanying a Minnesota-certified asbestos inspector; or

E. registration or certification as a registered architect, licensed professional engineer, certified industrial hygienist, or certified safety professional.

Subp. 3. **Training requirements for initial certification.** To be eligible for initial certification as an asbestos inspector an applicant must complete, before the commissioner's receipt of the application:

A. an initial asbestos inspector training course that is:

(1) permitted by the commissioner under part 4620.3704;

(2) approved by the United States Environmental Protection Agency (EPA) with the EPA approval granted after June 1, 1987; or

(3) approved by a state asbestos training program accredited by the EPA; and

B. an asbestos inspector refresher course permitted by the commissioner under part 4620.3704 if the applicant has completed an initial asbestos inspector training course specified in item A, subitem (2) or (3).

Subp. 4. **Training diploma expiration; retraining.** The applicant for certification as an asbestos inspector must complete an annual asbestos inspector refresher course permitted by the commissioner under part 4620.3704 to maintain certification eligibility when the diploma from an initial inspector training course as specified in subpart 3, item A, has expired before the commissioner's receipt of the application.

A. The most recent asbestos inspector refresher course completed must be permitted by the commissioner under part 4620.3704.

B. Any refresher courses which have been completed subsequent to the expiration of the diploma must have been completed no more than 12 months after the expiration date of the preceding diploma.

Subp. 5. **Application for initial certification.** An applicant for initial certification as an asbestos inspector must submit to the commissioner:

A. a completed application on a form provided by the commissioner, which seeks only information the commissioner reasonably considers necessary to identify the applicant

4620.3330 CLEAN INDOOR AIR

112

and to determine whether the applicant meets the statutory and regulatory requirements for certification;

B. a nonrefundable application fee of \$100, which is not in the form of a personal check, payable to the Minnesota Department of Health; and

C. verifiable evidence of the applicant's original diploma for the initial asbestos inspector training course, and, if applicable, verifiable evidence of each of the applicant's original diplomas from the asbestos inspector refresher training courses.

Subp. 6. Renewal.

A. An individual certified as an asbestos inspector must apply for renewal of asbestos inspector certification by submitting to the commissioner a completed renewal application. Until the renewal certificate is issued by the commissioner, the asbestos inspector may continue to perform asbestos inspections for up to 30 calendar days from the date of completing the refresher training course, provided the asbestos inspector:

(1) has submitted the certification renewal application to the commissioner; and

(2) has a copy of the diploma, which is issued after completing an asbestos inspector refresher course, at the location where the asbestos inspector is conducting work.

B. The renewal application must include:

(1) the completed renewal application on a form provided by the commissioner, which seeks only information the commissioner reasonably considers necessary to identify the applicant and to determine whether the applicant meets the statutory and regulatory requirements for renewal of certification;

(2) a nonrefundable renewal application fee of \$100, which is not in the form of a personal check, payable to the Minnesota Department of Health; and

(3) verifiable evidence of the training course diploma from the most recent asbestos inspector refresher training course required by subpart 4.

Subp. 7. Denial of certification. The commissioner shall deny an application for asbestos inspector certification if the applicant fails to comply with all applicable requirements in this part. Additional grounds for the commissioner to deny an application are stated in Minnesota Statutes, section 144.99, subdivision 8, paragraphs (a) and (b). An applicant:

A. must be notified in writing of the denial of the certificate and the reasons for the denial; and

B. is not required to pay a second fee if the applicant submits a second asbestos inspector application within 30 days of the receipt of the notice that the asbestos inspector application has been denied. Fees are required for all subsequent applications.

Subp. 8. Duration of certificate; transfer. An asbestos inspector certificate is valid for 12 months after the completion date on the diploma for the most recently completed training course. The asbestos inspector certificate is not transferable.

Subp. 9. Duplicate certificate. To replace a lost, destroyed, or mutilated asbestos inspector certificate, the certified asbestos inspector must submit a completed application for a duplicate asbestos inspector certificate and pay a charge to the Minnesota Department of Health for the cost of duplicating the certificate.

Statutory Authority: *MS s 16A.1285; 144.05; 144.122; 326.70 to 326.81*

History: *20 SR 2765; 25 SR 1894; 33 SR 739*

4620.3340 ASBESTOS MANAGEMENT PLANNER CERTIFICATION.

Subpart 1. Certification required. Beginning October 1, 1996, an individual who develops an asbestos management plan must be certified by the commissioner as an asbestos management planner.

Subp. 2. **Qualifications or experience requirements.** Beginning January 2, 1997, an individual applying for certification must show evidence of either:

A. work experience of at least 1,000 hours in the field of building inspection, asbestos-related work, safety, industrial hygiene, or hazardous materials control;

B. licensure by Minnesota as a building official;

C. a bachelor's degree in architecture, engineering, physical or life science, and work experience of 500 hours in the field of building inspection, asbestos-related work, safety, industrial hygiene, or hazardous materials control;

D. registration as a registered architect, licensure as a professional engineer, or certification as a certified industrial hygienist or certified safety professional; or

E. a master's degree in environmental health, industrial hygiene or safety, and work experience of 250 hours in the field of building inspection, asbestos-related work, safety, industrial hygiene, or hazardous materials control.

Subp. 3. **Training requirements for initial certification.** To be eligible for initial certification as an asbestos management planner an applicant must complete, before the commissioner's receipt of the application:

A. an initial asbestos management planner training course that is:

(1) permitted by the commissioner under part 4620.3704;

(2) approved by the United States Environmental Protection Agency (EPA) with the EPA approval granted after June 1, 1987; or

(3) approved by a state asbestos training program accredited by the EPA; and

B. an asbestos management planner refresher course permitted by the commissioner under part 4620.3704 if the applicant has completed the initial asbestos management planner training course specified in item A, subitem (2) or (3).

Subp. 4. **Training diploma expiration; retraining.** The applicant for certification as an asbestos management planner must complete an annual asbestos management planner refresher course permitted by the commissioner under part 4620.3704 when the diploma from an initial management planner training course as specified in subpart 3, item A, has expired before the commissioner's receipt of the application.

A. The most recent asbestos management planner refresher course completed must be permitted by the commissioner under part 4620.3704.

B. Any refresher courses which have been completed subsequent to the expiration of the diploma must have been completed no more than 12 months after the expiration date of the preceding diploma.

Subp. 5. **Application for initial certification.** An applicant for initial certification as an asbestos management planner must submit to the commissioner:

A. a completed application on a form provided by the commissioner, which seeks only information the commissioner reasonably considers necessary to identify the applicant and to determine whether the applicant meets the statutory and regulatory requirements for certification;

B. a nonrefundable application fee of \$100, which is not in the form of a personal check, payable to the Minnesota Department of Health; and

C. verifiable evidence of the applicant's original diploma for the initial asbestos management planner training course and, if applicable, verifiable evidence of each of the applicant's original diplomas for the asbestos management planner refresher training courses.

Subp. 6. **Renewal.**

A. An individual certified as an asbestos management planner must apply for renewal of asbestos management planner certification by submitting to the commissioner a completed renewal application. Until the renewal certificate is issued by the commissioner, the asbestos management planner may continue to perform asbestos management plans for

4620.3340 CLEAN INDOOR AIR

114

up to 30 calendar days from the date of completing the refresher training course, provided the asbestos management planner:

(1) has submitted the certification renewal application to the commissioner; and

(2) has a copy of the diploma, which is issued after completing an asbestos management planner refresher course, at the location where the asbestos management planner is conducting work.

B. The renewal application must include:

(1) the completed renewal application on a form provided by the commissioner, which seeks only information the commissioner reasonably considers necessary to identify the applicant and to determine whether the applicant meets the statutory and regulatory requirements for renewal of certification;

(2) a nonrefundable \$100 renewal application fee, which is not in the form of a personal check, payable to the Minnesota Department of Health; and

(3) verifiable evidence of the training course diploma from the most recent asbestos management planner refresher training course required by subpart 4.

Subp. 7. **Denial of certification.** The commissioner shall deny an application for certification as an asbestos management planner if the applicant fails to comply with the requirements in this part. Additional grounds for the commissioner to deny an application are stated in Minnesota Statutes, section 144.99, subdivision 8, paragraphs (a) and (b). An applicant:

A. must be notified in writing of the denial of the certificate and the reasons for the denial; and

B. is not required to pay a second fee if the applicant submits a second asbestos management planner application within 30 days of the receipt of the notice that the asbestos management planner application has been denied. Fees are required for all subsequent applications.

Subp. 8. **Duration of certificate; transfer.** An asbestos management planner certificate is valid for 12 months after the completion date on the diploma for the most recently completed training course. The asbestos management planner certificate is not transferable.

Subp. 9. **Duplicate certificate.** To replace a lost, destroyed, or mutilated asbestos management planner certificate, the certified asbestos management planner must submit a completed application for a duplicate asbestos management planner certificate and pay a charge to the Minnesota Department of Health for the cost of duplicating the certificate.

Statutory Authority: *MS s 16A.1285; 144.05; 144.122; 326.70 to 326.81*

History: *20 SR 2765; 25 SR 1894; 33 SR 739*

4620.3350 ASBESTOS PROJECT DESIGNER CERTIFICATION.

Subpart 1. **Certification required.** Beginning October 1, 1996, an individual who prepares an asbestos project design must be certified by the commissioner as an asbestos project designer.

Subp. 2. **Qualifications or experience requirements.** Beginning January 2, 1997, to be eligible for certification as an asbestos project designer, an individual applying for certification must show evidence of completion of either:

A. work experience of at least 4,000 hours in asbestos-related work or asbestos management activity as defined in Minnesota Statutes, section 326.71; or

B. registration as a registered architect, licensure as a professional engineer, or certification as a certified industrial hygienist or certified safety professional.

Subp. 3. **Training requirements for initial certification.** To be eligible for initial certification as an asbestos project designer, an applicant must complete, before the commissioner's receipt of the application:

- A. an initial asbestos project designer training course that is:
 - (1) permitted by the commissioner under part 4620.3704;
 - (2) approved by the United States Environmental Protection Agency (EPA) with the EPA approval granted after June 1, 1987; or
 - (3) approved by a state asbestos training program accredited by the EPA; and
- B. an asbestos project designer refresher course permitted by the commissioner under part 4620.3704 if the applicant has completed the initial asbestos project designer training course specified in item A, subitem (2) or (3).

Subp. 4. **Training diploma expiration; retraining.** The applicant for certification as an asbestos project designer must complete an annual asbestos project designer refresher course permitted by the commissioner under part 4620.3704 when the diploma from an initial project designer training course as specified in subpart 3, item A, has expired before the commissioner's receipt of the application.

A. The most recent asbestos project designer refresher course completed must be permitted under part 4620.3704 by the commissioner.

B. Any refresher courses which have been completed subsequent to the expiration of the diploma must have been completed no more than 12 months after the expiration date of the preceding diploma.

Subp. 5. **Application for initial certification.** An applicant for initial certification as an asbestos project designer must submit to the commissioner:

A. a completed application on a form provided by the commissioner, which seeks only information the commissioner reasonably considers necessary to identify the applicant and to determine whether the applicant meets the statutory and regulatory requirements for certification;

B. a nonrefundable application fee of \$100, which is not in the form of a personal check, payable to the Minnesota Department of Health; and

C. verifiable evidence of the applicant's original diploma for the initial asbestos project designer training course and, if applicable, verifiable evidence of each of the applicant's original diplomas from the asbestos project designer refresher training courses.

Subp. 6. **Renewal.**

A. An individual certified as an asbestos project designer must apply for renewal of asbestos project designer certification by submitting to the commissioner a completed renewal application. Until the renewal certificate is issued by the commissioner, the asbestos project designer may continue to perform asbestos project designs for up to 30 calendar days from the date of completing the refresher training course, provided the asbestos project designer:

(1) has submitted the certification renewal application to the commissioner;

and

(2) has a copy of the diploma, which is issued after completing an asbestos project designer refresher course, at the location where the asbestos project designer is conducting work.

B. The renewal application must include:

(1) the completed renewal application on a form provided by the commissioner, which seeks only information the commissioner reasonably considers necessary to identify the applicant and to determine whether the applicant meets the statutory and regulatory requirements for renewal of certification;

4620.3350 CLEAN INDOOR AIR

116

(2) a nonrefundable renewal application fee of \$100, which is not in the form of a personal check, payable to the Minnesota Department of Health; and

(3) verifiable evidence of the training course diploma from the most recent asbestos project designer refresher training course required by subpart 4.

Subp. 7. **Denial of certification.** The commissioner shall deny an application for an asbestos project designer certificate if the applicant fails to comply with the requirements in this part. Additional grounds for the commissioner to deny an application are stated in Minnesota Statutes, section 144.99, subdivision 8, paragraphs (a) and (b). An applicant:

A. must be notified in writing of the denial of the certificate and the reasons for the denial; and

B. is not required to pay a second fee if the applicant submits a second asbestos project designer application within 30 days of the receipt of the notice that the asbestos project designer application has been denied. Fees are required for all subsequent applications.

Subp. 8. **Duration of certificate; transfer.** An asbestos project designer certificate is valid for 12 months after the completion date on the diploma for the most recently completed training course. The asbestos project designer certificate is not transferable.

Subp. 9. **Duplicate certificate.** To replace a lost, destroyed, or mutilated asbestos project designer certificate, the certified asbestos project designer must submit a completed application for a duplicate asbestos project designer certificate and pay a charge to the Minnesota Department of Health for the cost of duplicating the certificate.

Statutory Authority: *MS s 16A.1285; 144.05; 144.122; 326.70 to 326.81*

History: *20 SR 2765; 25 SR 1894; 33 SR 739*

4620.3400 [Repealed, 20 SR 2765]

4620.3410 ASBESTOS-RELATED WORK PROJECT NOTICE.

Subpart 1. **General.** Each licensed asbestos contractor must notify the commissioner of each project to be performed in whole or in part by the licensed asbestos contractor.

Subp. 2. **Requirements for notice.** At least five calendar days before the beginning of a project, except as provided in part 4620.3420, the commissioner must receive from the licensed asbestos contractor:

A. a completed notice on a form provided by the commissioner which seeks only information the commissioner reasonably considers necessary to inspect the project and issue the permit; and

B. the permit fee for the project as determined under part 4620.3430.

Subp. 3. **Notice of abatement schedule.** The commissioner must be notified in advance of the dates and work shift times for abatement.

A. If a project will occur in two or more phases between the project start and end dates specified on the notice, the commissioner must receive a written schedule of abatement dates and work shift times from the licensed asbestos contractor performing abatement at least five calendar days before beginning the project.

B. For a project described in part 4620.3100, subpart 27b, item B or C, if the licensed asbestos contractor performing abatement cannot reasonably determine the schedule for abatement at the time of notice, the licensed asbestos contractor performing abatement must also submit written notice to the commissioner of abatement dates and work shift times for each portion of the project which exceeds three linear feet or three square feet of asbestos-containing material, so that the commissioner receives the notice as soon as possible before that portion of the project begins.

C. The asbestos contractor performing abatement must ensure that at least one site supervisor is present at the project site on the dates and during the work shifts for which the commissioner has been notified.

D. The asbestos contractor performing abatement must ensure that abatement is performed only during dates and work shifts for which the commissioner has been notified.

Statutory Authority: *MS s 144.05; 326.70 to 326.81*

History: *20 SR 2765; 33 SR 739*

4620.3415 AMENDMENT OF NOTICE.

The licensed asbestos contractor performing abatement must notify the commissioner according to this part of any change in the information reported to the commissioner by that contractor under part 4620.3410.

A. All amendments except for work shift times and dates must be in writing with the permit number and the changes clearly indicated.

B. Any amendment of the project start date to an earlier start date must be received by the commissioner at least five calendar days before abatement begins.

C. An amendment, other than a change of the project start date to an earlier start date, must be received by the commissioner no later than the effective date and time of the change.

D. Any amendment of the dates or work shift times, other than the project start and end dates, must be received by the commissioner by voice mail, telephone, facsimile, mail, or delivery.

Statutory Authority: *MS s 144.05; 326.70 to 326.81*

History: *20 SR 2765; 33 SR 739*

4620.3420 EMERGENCY PROJECT NOTICE.

Subpart 1. **Emergency project begun during work hours.** For an emergency project which begins between 8:00 a.m. and 4:30 p.m. on the days the Minnesota Department of Health is open, the commissioner must receive from the licensed asbestos contractor:

A. a completed notice on a form provided by the commissioner which seeks only information the commissioner considers reasonably necessary to inspect the project and issue the permit as soon as possible before the project begins; and

B. within five calendar days after the emergency project begins, the items listed in part 4620.3410, subpart 2, items B and C.

Subp. 2. **Emergency project begun after work hours.** For an emergency project which begins at a time other than the times specified in subpart 1, the commissioner must receive from the licensed asbestos contractor:

A. a completed notice on a form provided by the commissioner which seeks only information the commissioner considers reasonably necessary to inspect the project and issue the permit by 4:30 p.m. of the next day the department is open; and

B. within five calendar days after the emergency project begins, the items listed in part 4620.3410, subpart 2, items B and C.

Subp. 3. **Amendments to emergency project notice.** Amendments to the emergency project notice form must be made according to part 4620.3415, items A, C, and D. An amendment to an emergency project notice must not include additional asbestos-containing material to be abated unless that material is part of the same emergency situation.

Statutory Authority: *MS s 144.05; 326.70 to 326.81*

History: *20 SR 2765*

4620.3425 PERMIT ISSUANCE.

If the licensed asbestos contractor performing abatement complies with the requirements of part 4620.3410, subparts 2 and 3, or 4620.3420, subpart 1 or 2, the commissioner shall issue a project permit to the licensed asbestos contractor. The project permit shall

4620.3425 CLEAN INDOOR AIR

118

expire on the end date stated on the notice or any amendment of the end date made under part 4620.3415.

Statutory Authority: *MS s 144.05; 326.70 to 326.81*

History: *20 SR 2765*

4620.3430 PERMIT FEES.

Subpart 1. **General.** Fees are required for all projects.

Subp. 2. **Permit fees for abatement other than small residential abatement.** As required by Minnesota Statutes, section 326.75, subdivision 3, the asbestos contractor performing abatement must ensure that a project fee equal to one percent of the total cost of the abatement portion of a project is paid to the commissioner.

A. The total cost of the abatement portion of a project must include the cost of abatement area preparation, decontamination units, containment and permanent enclosures, alterations, abatement operations, repairs, wages, materials, waste disposal, profit, performance bonds, insurance, and administrative overhead. The total cost of the abatement portion of a project does not include the cost of reinsulation or the cost of air quality monitoring.

B. If the final invoice amount for the abatement portion exceeds the total cost of the abatement portion of the project previously reported on the notification form, the asbestos contractor performing abatement must ensure that an additional fee payment in the amount of one percent of that difference is submitted to the commissioner within 30 calendar days of the submission of the invoice to the contracting entity.

C. If the final project cost amount for the abatement portion is less than the total cost of the abatement portion of the project previously reported on the notification form, the commissioner must pay a refund of the excess fee payment to the licensed asbestos contractor.

Subp. 3. **Permit fees; air quality monitoring; except small residential abatement.** As required by Minnesota Statutes, section 326.75, subdivision 3, the asbestos contractor performing air monitoring must ensure that a project fee equal to one percent of the total cost of the air quality portion of a project is paid to the commissioner.

A. The total cost of the air quality monitoring portion of a project must include the cost of air quality monitoring as specified in part 4620.3598, wages, materials, profit, performance, bonds, insurance, and administrative overhead.

B. If the final invoice for the air quality monitoring portion of the project exceeds the total cost of the air quality monitoring portion of the project previously reported on the notification form, the asbestos contractor performing air monitoring must ensure that an additional fee payment in the amount of one percent of that difference is submitted to the commissioner within 30 calendar days of the submission of the invoice to the contracting entity.

C. If the final project cost amount for the air quality monitoring portion is less than the total cost of the air quality monitoring portion of the project previously reported on the notification form, the commissioner must pay a refund of the excess fee payment to the licensed asbestos contractor.

Subp. 4. **Small residential abatement permit fee.** Notwithstanding anything in this part, for each small residential abatement the person undertaking that abatement must pay to the commissioner a project permit fee of \$35 per project.

Statutory Authority: *MS s 16A.1285; 144.05; 144.122; 326.70 to 326.81*

History: *20 SR 2765*

4620.3435 POSTING THE WORK SITE.

The licensed asbestos contractor performing abatement must post in a conspicuous place outside of the abatement area:

- A. a copy of the project permit;
- B. a copy of the project notice and all written amendments pertaining to that project; and
- C. if applicable, a copy of the notice submitted to the commissioner according to part 4620.3410, subpart 3.

Statutory Authority: *MS s 144.05; 326.70 to 326.81*

History: *20 SR 2765*

4620.3440 RECORDS.

Subpart 1. **On-site records.** The asbestos contractor performing abatement must ensure that the records in this subpart are readily available for review by the commissioner at the work site during the entire period of the project.

A. A daily sign-in and sign-out log must identify individuals entering containments, mini-containments, or working with glove bags, by name, certificate number, and length of time spent in the containments, mini-containments, or working with glove bags.

B. A copy of the asbestos project plan must be developed according to part 4620.3560.

C. All on-site air monitoring results for air monitoring required under parts 4620.3592 to 4620.3598 must be documented, including a written explanation of any fiber count above the applicable standards.

D. The negative air pressure measurements required under part 4620.3570 must clearly indicate the measurement, the date and time of the measurement, and the containment to which the measurement applies. All instances of negative pressure deviation from the minimum requirement under part 4620.3570, subparts 4 and 5, must have a written explanation on or attached to the measurement record.

Subp. 2. **Record retention.** The records in subpart 1 must be retained by the asbestos contractor for 30 years after completion of the project. When the licensed asbestos contractor ceases operation, within 20 calendar days of ceasing operation, the responsible individual must submit written notice to the commissioner of the name, address, and telephone number of the individual with whom the records required by subpart 1 are deposited.

Statutory Authority: *MS s 144.05; 326.70 to 326.81*

History: *20 SR 2765*

4620.3450 DUTIES OF CONTRACTING ENTITY.

A contracting entity is responsible for compliance with this part. A contracting entity must:

A. maintain for at least three years, records of the amount of asbestos-containing material removed, enclosed, and encapsulated, during each calendar year, in each facility for which the contracting entity is responsible; and

B. before any person begins work involving the enclosure, removal, or encapsulation of asbestos-containing material, inform that person, in writing, of the cumulative quantities of all asbestos-containing materials enclosed, removed, or encapsulated within a facility during the current calendar year, as of the date of the writing.

Statutory Authority: *MS s 144.05; 326.70 to 326.81*

History: *20 SR 2765*

4620.3460 ASBESTOS INSPECTION AND ASSESSMENT.

Subpart 1. **Applicability.** When an asbestos inspection is performed, the asbestos inspection must be conducted according to this part.

Subp. 2. **Asbestos sampling.** Sampling must be conducted as provided in Code of Federal Regulations, title 40, chapter I, subchapter R, part 763, subpart E, section 763.86, amended through April 15, 1988, and Code of Federal Regulations, title 40, chapter I, subchapter R, part 763, subpart E, appendix C, section I, paragraph (B), subparagraph (3), amended through February 3, 1994.

Subp. 3. **Asbestos analysis.** Analysis of bulk samples collected as part of an asbestos inspection must be analyzed according to this subpart.

A. Bulk samples collected and submitted for analysis must be analyzed for asbestos using a laboratory:

(1) accredited by the National Institute of Science and Technology (NIST) through the National Voluntary Laboratory Accreditation Program (NVLAP); or

(2) which successfully participates in the asbestos bulk analysis program of the American Industrial Hygiene Association (AIHA).

B. Bulk samples must not be composited for analysis unless allowed by the Environmental Protection Agency (EPA) as specified in "Asbestos NESHAP Clarification Regarding Analysis of Multi-layered Systems," Federal Register, volume 5, number 3, page 542, January 5, 1994. Bulk samples shall be analyzed for asbestos content by polarized light microscopy (PLM), as specified in EPA Method for the Determination of Asbestos in Bulk Building Materials, United States EPA 600/R-93/116, 1993. This document is incorporated by reference, is not subject to frequent change, and is available through the Minitex interlibrary loan system.

C. A homogeneous area is determined not to contain asbestos only if the results of all samples required to be collected from the area show asbestos in amounts of one percent or less.

D. A homogeneous area is determined to contain asbestos if results of at least one sample collected from the area shows that asbestos is present in an amount greater than one percent.

E. The asbestos inspector must obtain an analysis report which contains the:

(1) name and address of the laboratory performing the analysis;

(2) date of the analysis; and

(3) name and signature of the person performing the analysis.

Subp. 4. **Assessment.** If the asbestos inspector performs an assessment of the condition of asbestos-containing material or suspected asbestos-containing material, the asbestos inspector must provide a written assessment using the categories from Code of Federal Regulations, title 40, chapter I, subchapter R, part 763, subpart E, section 763.88, paragraph (b), items (1) to (7), amended through April 15, 1988, for all known or assumed asbestos-containing material in the facility or portion of the facility inspected.

Subp. 5. **Inspector duties.** The asbestos inspector must have a current asbestos inspector certificate at the location where the asbestos inspector is conducting work, except as provided in part 4620.3330, subpart 6, item A. The asbestos inspector must prepare a written report which:

A. contains the exact location of each homogeneous area of material which is known or assumed to be asbestos-containing material;

B. if the asbestos inspector performs an assessment of asbestos-containing material or suspected asbestos-containing material, contains the condition of each homogeneous area of material which is known or assumed to be asbestos-containing material;

C. is signed by the inspector;

- D. is dated by the inspector;
- E. includes the inspector's Minnesota asbestos inspector certification number;
- F. provides a photocopy of the current asbestos inspector certificate of each inspector who performed the inspection; and
- G. is provided to the person requesting the inspection.

Statutory Authority: *MS s 144.05; 326.70 to 326.81*

History: *20 SR 2765; 25 SR 1894*

4620.3470 ASBESTOS MANAGEMENT PLAN.

Subpart 1. **Applicability.** When an asbestos management planner develops a written asbestos management plan for a facility or portion of a facility, the asbestos management plan must meet the requirements of this part.

Subp. 2. **General.** The asbestos management plan must address all materials known or assumed to be asbestos-containing material within the facility or portion of the facility.

A. An asbestos management plan must be developed by an individual certified as an asbestos management planner.

B. The asbestos management planner must have a current asbestos management planner certificate at the location where the asbestos management planner is conducting work, except as provided in part 4620.3340, subpart 6, item A.

C. Any changes to an asbestos management plan must be made by an asbestos management planner.

D. The asbestos management planner must ensure that the asbestos management plan is available for review by the commissioner on request.

E. Material assumed by the asbestos inspector to be asbestos-containing material must be designated by the asbestos management planner in the asbestos management plan as asbestos-containing material, unless sampling of the material demonstrates the material is not asbestos-containing material.

Subp. 3. **Asbestos management plan contents.** The asbestos management plan must be specific for the facility designated in the plan and contain:

- A. the name and address of the facility;
- B. copies of all asbestos inspection reports including copies of all photographs, diagrams, or other items referred to in the report;
- C. a blueprint, legible diagram, or written description of the facility that indicates the location of all known or assumed asbestos-containing material;
- D. the name, address, and telephone number of the individual designated to implement and administer the asbestos management plan;
- E. the name and signature of the management planners making the recommendations, and a photocopy of the valid asbestos management planner certificate belonging to each management planner;
- F. response actions, or preventative measures performed or to be performed to minimize or prevent fiber release episodes; and
- G. procedures to inform facility maintenance personnel and outside contractors of the location and identity of building materials known or assumed to be asbestos-containing material before the beginning of work in an area where these materials are located.

Statutory Authority: *MS s 144.05; 326.70 to 326.81*

History: *20 SR 2765; 25 SR 1894*

4620.3480 ASBESTOS PROJECT DESIGN.

Subpart 1. **Applicability.** When an asbestos project design is prepared, it must be prepared according to this part and signed by the asbestos project designer.

4620.3480 CLEAN INDOOR AIR

122

Subp. 2. **Use of asbestos project designer.** The asbestos project designer must have a current asbestos project designer certificate at the location where the asbestos project designer is conducting work, except as provided in part 4620.3350, subpart 6, item A. The asbestos project designer must include in the asbestos project design a photocopy of the current asbestos project designer certificate of the asbestos project designer who prepared the asbestos project design.

Subp. 3. **Technical specification content requirements.** The asbestos project designer must include in the asbestos project design the method for complying with all applicable work practice requirements of parts 4620.3000 to 4620.3724. The asbestos project design must address:

- A. preparation of each asbestos-related work area;
- B. establishment of each containment;
- C. establishment of each decontamination unit and procedures for use;
- D. evaluation and selection of various fiber release control options;
- E. establishment, maintenance, and monitoring of negative air pressure within each containment;
- F. asbestos-containing material enclosure, removal, encapsulation, or repair work practices;
- G. visual inspection procedures for each asbestos abatement containment area;
- H. air monitoring, including analysis, documentation, and record keeping;
- I. respiratory protection and personal protective equipment requirements; and
- J. disposal of asbestos-containing materials and project waste.

Statutory Authority: *MS s 144.05; 326.70 to 326.81*

History: *20 SR 2765; 25 SR 1894*

4620.3500 [Repealed, 20 SR 2765]

4620.3559 APPLICABLE WORK PRACTICES FOR ABATEMENT.

Any person performing asbestos-related work must ensure compliance with parts 4620.3560 to 4620.3598.

A. Notwithstanding this part, for asbestos-related work involving the enclosure, removal, or encapsulation of asbestos-containing material that is located outside the foundation, curtain walls, or roof of a facility and is above grade, the asbestos contractor must comply with parts 4620.3000 to 4620.3724 except parts 4620.3566; 4620.3567; 4620.3568, subparts 1 to 4; 4620.3569; 4620.3570; 4620.3575, subparts 1 to 8; 4620.3580; 4620.3581; 4620.3585; 4620.3592; 4620.3594; 4620.3596; 4620.3597; and 4620.3598.

B. Notwithstanding this part, in the case of asbestos-related work within a tunnel, as defined in part 4620.3100, subpart 33, the asbestos contractor must:

- (1) comply with parts 4620.3000 to 4620.3724 except part 4620.3568, subparts 2 to 4; and
- (2) use two layers of six-mil polyethylene sheeting for critical containment barriers when complying with part 4620.3567.

Statutory Authority: *MS s 144.05; 326.70 to 326.81*

History: *20 SR 2765*

4620.3560 ASBESTOS PROJECT PLAN.

Subpart 1. **Applicability.** For each project other than a project in a single-family residence executed by the domiciled owner of the residence, the person performing abatement must prepare a project-specific asbestos project plan.

Subp. 2. **Plan availability.** The person performing abatement must have a complete and current asbestos project plan available for inspection at the project site at the start of the project.

Subp. 3. **Asbestos project plan content.** The asbestos project plan must contain:

- A. the name and address of the project site;
- B. a list of the asbestos work areas, including room numbers if known, of the project;
- C. the amount and type of asbestos-containing material to be removed, encapsulated, or enclosed in each asbestos work area;
- D. the date when the heating, ventilating, and air conditioning (HVAC) system for each asbestos work area will be shut down;
- E. the name of any person responsible for the shutdown in item D;
- F. the rated capacity of each negative air machine used to establish and maintain the negative air pressure of each containment;
- G. the calculation showing the number of containment air changes per hour and the number of negative air machines used to establish and maintain the required containment negative air pressure for each containment;
- H. documentation if a negative air system is to be exhausted indoors, why it is technically infeasible to exhaust the negative air system outdoors; and
- I. a floor plan or sketch which indicates:
 - (1) the dimensions and volume of each containment;
 - (2) the location of any negative air machines used in the asbestos work area;
 - (3) the location of any decontamination unit to be used in conjunction with each asbestos work area; and
 - (4) the type, size, and location of any containment attachments through which asbestos waste containers are removed from the containment.

Subp. 4. **Asbestos project plan changes.** If any information was estimated or a change occurs during the project, the new information must be added to the asbestos project plan as it becomes known.

Statutory Authority: *MS s 144.05; 326.70 to 326.81*

History: *20 SR 2765*

4620.3566 CLEANING CONTAINMENT AREA BEFORE ABATEMENT.

All surfaces of the containment area must be cleaned before abatement. The following actions must be taken before abatement begins.

- A. Uncontaminated movable objects must be removed from the containment area.
- B. Contaminated objects or objects suspected of being contaminated must be either:
 - (1) vacuumed with a HEPA-filter equipped vacuum;
 - (2) wet wiped; or
 - (3) disposed of as asbestos waste.
- C. Decontaminated movable objects must be removed from the containment area.
- D. Objects that cannot be removed from the containment area must be cleaned by HEPA-filter equipped vacuuming or by wet wiping.
- E. Before the critical barriers are constructed, all remaining surfaces in the containment area that will be in contact with the critical barriers must be cleaned by HEPA-filter equipped vacuuming or by wet wiping.

4620.3566 CLEAN INDOOR AIR

124

F. Any freestanding containment wall that needs to be constructed must be framed after the removal of all movable objects from the containment area.

Statutory Authority: *MS s 144.05; 326.70 to 326.81*

History: *20 SR 2765*

4620.3567 INSTALLATION OF CRITICAL BARRIERS.

All openings between the containment area and uncontaminated areas must be sealed with at least one layer of six-mil polyethylene plastic sheeting securely fastened to achieve an airtight seal around the opening.

A. All objects or structures that cannot be removed from the containment area must be covered with at least one layer of six-mil polyethylene plastic sheeting securely fastened to achieve an airtight seal around the object or structure.

B. All heating, ventilating, and air conditioning intake and exhaust openings in the containment area and any seams in system components must be sealed with at least two layers of six-mil polyethylene sheeting securely fastened to achieve an airtight seal around the object or structure.

C. All penetrations, including penetrations around electrical conduits, telephone wires, water supply pipes, and drain pipes, must be sealed with at least one layer of six-mil polyethylene plastic sheeting securely fastened to achieve an airtight seal around the object.

D. All porous surfaces except ceilings not addressed in items A to C must be sealed with at least one layer of six-mil polyethylene plastic sheeting securely fastened to achieve an airtight seal.

E. All openings between the asbestos abatement containment area and contaminated areas must be sealed with at least one layer of six-mil polyethylene plastic sheeting or comparable material securely fastened to achieve an airtight seal around the opening.

F. If any freestanding containment wall is to be used, the porous outside of the wall frame or frame of the freestanding containment must be covered with at least one layer of six-mil polyethylene sheeting securely fastened to achieve an airtight seal.

Statutory Authority: *MS s 144.05; 326.70 to 326.81*

History: *20 SR 2765*

4620.3568 CONTAINMENT.

Subpart 1. **General.** The containment must be constructed to separate and isolate the containment area from the rest of the building and the outdoors. The containment must be airtight and leakproof.

Subp. 2. **Floor sheeting.** Floor sheeting must be placed over the entire floor as part of the containment.

A. Floor sheeting must consist of at least two layers of six-mil polyethylene plastic sheeting or comparable material.

B. For the first layer, enough area for overlap with the wall sheeting must be provided to maintain an airtight and leakproof seal for the containment.

C. For the second layer, the sheeting must extend 12 inches beyond the wall or floor joints.

D. Floor sheeting must be sized to minimize seams.

E. The floor must have no seams at wall and floor joints.

Subp. 3. **Wall sheeting.** Wall sheeting must be placed over the entire wall. Wall sheeting must:

A. consist of at least one layer of four-mil polyethylene plastic sheeting;

B. provide enough area for overlap with the other wall or floor sheeting to maintain an airtight and leakproof seal for the containment;

- C. be sized to minimize seams;
- D. extend to the deck area or floor joists;
- E. not have seams located at wall and floor joints; and
- F. have a 12-inch by 12-inch clear viewing window, where feasible, to allow for a view of the work area if the polyethylene plastic sheeting is not clear.

Subp. 4. **Freestanding containment walls and freestanding containments.** Freestanding containment walls and freestanding containments must:

- A. have floor sheeting that complies with subpart 2;
- B. have interior wall sheeting that complies with subpart 3;
- C. have the frame painted with a nonporous paint if the framing materials used for a freestanding wall or containment are made of a porous material such as wood, unless the framing materials are covered with polyethylene sheeting or the framing materials are disposed of as asbestos waste at the end of the project; and
- D. have interior ceiling sheeting that consists of one layer of four-mil polyethylene plastic sheeting and is securely fastened to provide an airtight, leakproof containment if containment walls do not abut the ceiling.

Subp. 5. **Posting asbestos work area.** During asbestos-related work, warning signs must be displayed at all approaches to the asbestos work area. The sign must state: "DANGER. ASBESTOS CANCER AND LUNG DISEASE HAZARD. AUTHORIZED PERSONNEL ONLY. RESPIRATORS AND PROTECTIVE CLOTHING ARE REQUIRED IN THIS AREA."

Statutory Authority: *MS s 144.05; 326.70 to 326.81*

History: *20 SR 2765*

4620.3569 DECONTAMINATION UNITS.

Subpart 1. **General.** Procedures for the use of the decontamination unit must be established by the person performing abatement to prevent contamination outside the asbestos work area. A decontamination unit must be used by all persons when exiting a containment. The decontamination unit must:

- A. be contiguous with the containment area except as provided in subpart 2;
- B. consist of a series of connecting rooms with the middle room being the shower room;
- C. have doorways between the rooms and entrances to the unit protected with two overlapping sheets of polyethylene or the functional equivalent; and
- D. have a shower room that:
 - (1) is leakproof;
 - (2) contains a series of water filters with the last filter capable of collecting particles of 5.0 micron or less;
 - (3) is supplied with hot and cold water adjustable at the tap; and
 - (4) is supplied with soap and disposable towels.

Subp. 2. **Location.** In facilities classified in the Standard Industrial Classification Manual, 1987, as a B division, D division-major group 26, or E division-major group 49, the decontamination unit must be connected to the containment where feasible. The Standard Industrial Classification Manual, 1987, is available from the National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia, 22161, or from the State Law Library, Minnesota Judicial Center, 25 Rev. Dr. Martin Luther King Jr. Blvd., St. Paul, Minnesota 55155.

Subp. 3. **Waste.** Filtered wastewater from the shower must be discharged to a sanitary sewer or a septic system, or may be collected in barrels for later disposal to a sanitary sewer or septic system.

4620.3569 CLEAN INDOOR AIR

126

Subp. 4. **Small residential decontamination unit.** For small residential abatement, the decontamination unit must consist of at least a clean room, shower room, and dirty room.

Subp. 5. **Decontamination unit other than small residential abatement.** For abatement in a facility other than small residential abatement, the decontamination unit must consist of a clean room, an air lock chamber, a shower, an air lock chamber, and a dirty room.

Statutory Authority: *MS s 144.05; 326.70 to 326.81*

History: *20 SR 2765*

4620.3570 HEPA-FILTERED NEGATIVE PRESSURE.

Subpart 1. **General.** The containment must be provided with a HEPA-filter equipped ventilation system.

Subp. 2. **HEPA-filter equipped negative air requirements.** The HEPA-filter negative air machine must be equipped with:

- A. a calibrated pressure gauge to measure the pressure drop across the filter;
- B. an audible alarm or an automatic unit shutdown mechanism activated in the event of a breach in the filter or in the absence of a filter;
- C. an audible alarm or automatic unit shutdown mechanism activated when the differential pressure across the filter exceeds a preset pressure; and
- D. an automatic electrical power cutoff switch so the unit will not operate if the HEPA-filter is not present or not positioned correctly.

Subp. 3. **Continuous operation of HEPA-filter equipped ventilation system.** The HEPA-filter equipped ventilation system must operate continuously from the time of asbestos disturbance until results of analysis of the clearance samples indicate the air inside the containment is at or below the clearance standard or the alternative clearance standard.

Subp. 4. **HEPA-filter equipped system criteria.** The HEPA-filter equipped ventilation system must be operated according to the criteria in this subpart.

A. The amount of air exhausted from the containment must provide for at least four air changes per hour within the containment.

B. A negative pressure of at least 0.02 inches of water must be established and maintained within each containment with respect to the area outside of the containment.

C. The negative pressure must be measured by a recording manometer.

(1) The recording manometer must be placed as far from the intake of the HEPA-filter equipped ventilation system as possible.

(2) The recording manometer must be placed to ensure that the reading is of the containment's negative pressure.

(3) The recording manometer must be monitored every two hours throughout all abatement work shifts to ensure continuous recording operation.

(4) The recording manometer must be zeroed before work begins each day.

(5) Each recording manometer must be calibrated at least annually.

(6) In the event of a failure of a recording manometer during a project, the following actions must be taken:

(a) an operating recording manometer must be placed in service within 24 hours of the failure of the initial recording manometer;

(b) until an operating recording manometer is placed in service, hourly pressure readings must be documented for all work shifts; and

(c) documentation must be available at the work site for each failure of the recording manometer.

Subp. 5. **Inability to establish or maintain a negative pressure of at least 0.02 inches of water.** If it is not possible to establish or maintain a negative pressure of at least 0.02 inches of water in the containment with respect to the pressure outside the containment for a period of 15 minutes, items A to D apply in addition to the requirements of subpart 4, item C.

A. A pressure as close to negative 0.02 inches of water as possible must be maintained from the time construction of the containment is completed until results from clearance air samples are obtained.

B. The amount of air exhausted from the containment must be increased to at least six air changes per hour within the containment.

C. Documentation must be available on site for each case of the failure to establish negative pressure or each case of failure to maintain a pressure of negative 0.02 inches of water in the containment with respect to the air pressure outside the containment. The documentation must specify the:

- (1) probable cause of failure to establish or maintain the required negative air pressure;
- (2) date of failure to establish or maintain the required negative air pressure;
- (3) times of failure to maintain the required negative air pressure; and
- (4) name of the asbestos site supervisor in charge of the site at the time of failure to establish or maintain the required negative air pressure in the containment with respect to the air pressure outside the containment.

D. Specific methods used to reestablish a negative pressure of at least 0.02 inches of water in the containment with respect to the air outside the containment must be documented and available for review on site.

Subp. 6. **HEPA-filtered ventilation system exhaust.** The HEPA-filter equipped ventilation system must be positioned to exhaust filtered air to the outside of the facility. If it is not technically feasible to exhaust the HEPA-filter equipped ventilation systems outdoors, there must be air monitoring every four hours during abatement activity in the vicinity of the HEPA-filter equipped ventilation system exhaust.

Statutory Authority: *MS s 144.05; 326.70 to 326.81*

History: *20 SR 2765*

4620.3571 REMOVAL OF ASBESTOS-CONTAINING MATERIAL.

Subpart 1. **General.** Water to which a surfactant has been added must be used before and during removal of asbestos-containing material to prevent fibers from becoming airborne during asbestos-related work. All asbestos-containing material must:

- A. be wet before removal;
- B. be adequately wet during removal;
- C. be placed and sealed in containers while adequately wet; and
- D. not be allowed to dry.

Subp. 2. **Removal of structures and objects covered with asbestos-containing material.** A structure or object covered with asbestos-containing material must be:

- A. removed intact or in large sections where possible;
- B. wet before being sealed in six-mil clear polyethylene sheeting or comparable material;
- C. wet during removal of the structure or object; and
- D. lowered to the floor or ground and not dropped.

4620.3571 CLEAN INDOOR AIR

128

Subp. 3. **Waste.** Waste containers must be sealed to prevent drying of the asbestos-containing material.

Statutory Authority: *MS s 144.05; 326.70 to 326.81*

History: *20 SR 2765*

4620.3572 ENCAPSULATION OF ASBESTOS-CONTAINING MATERIAL.

Encapsulation of asbestos-containing material must meet the requirements in this part.

A. Any loose or hanging asbestos-containing material must be removed before encapsulation according to part 4620.3571.

B. Filler compound applied to gaps in existing asbestos-containing material must contain no asbestos, adhere well to the substrate, and provide a base for the encapsulant.

C. Spray encapsulant must be applied using only airless spray equipment.

D. Encapsulant must be water-based.

E. Encapsulated asbestos-containing material must be specially designated, according to Code of Federal Regulations, title 29, section 1926.1101(k)(8), to warn individuals who may disturb the material.

Statutory Authority: *MS s 144.05; 326.70 to 326.81*

History: *20 SR 2765*

4620.3573 PERMANENT ENCLOSURE REQUIREMENTS.

Installation of a permanent enclosure of asbestos-containing material must meet the requirements in this part.

A. A permanent enclosure must:

- (1) consist of a rigid barrier with impermeable sides;
- (2) be designed to prevent air movement across the rigid barrier; and
- (3) render the area behind it inaccessible.

B. Any asbestos-containing materials that will be disturbed during the installation of hangers, brackets, or other portions of the permanent enclosure must be sprayed with water to which surfactant has been added.

C. Any loose or hanging asbestos-containing material must be removed before construction of the enclosure.

D. The permanent enclosure must be specially designated, according to Code of Federal Regulations, title 29, section 1926.1101(k)(8), to warn individuals who may disturb the enclosure.

Statutory Authority: *MS s 144.05; 326.70 to 326.81*

History: *20 SR 2765*

4620.3575 COMPLETION OF ABATEMENT.

Subpart 1. **Postabatement cleaning.** After asbestos-containing material has been removed, encapsulated, or enclosed, interior surfaces of the containment and interior surfaces of the decontamination unit must be cleaned.

A. HEPA-filter equipped vacuuming, wet wiping, or both, must be used.

B. Cleaning must be performed until no asbestos dust, residue, dirt, or debris is visible on any part of the work area.

C. All liquid waste must be cleaned up and disposed of as described in subpart 9.

D. All abatement equipment must be cleaned and all equipment except the HEPA-filter equipped negative air machine must be removed from the containment.

E. Asbestos contaminated equipment that cannot be cleaned must be sealed in two layers of six-mil polyethylene before removal from the containment.

F. Asbestos-containing material which was removed must be taken out of the containment.

Subp. 2. **Visual inspection of containment after postabatement cleaning.** A visual inspection of the containment and the decontamination unit must be performed after the containment and decontamination unit have dried completely.

A. Any residue observed in the containment or decontamination unit must be considered to be asbestos.

B. The sequence of cleaning and inspection must be repeated until the area passes a visual inspection.

C. The inspection must establish completeness of removal, encapsulation, enclosure, and cleanup.

(1) Surfaces must be wiped using a dark damp cloth to collect the dust, debris, and residue from surfaces.

(2) The cloth must be inspected for evidence of dust.

(3) After the final inspection, residue, dust, dirt, or debris must not be visually detectable on any part of the work area, including floors, walls, ducts, conduits, pipes, and ceiling tile grid bars, as well as the asbestos abatement equipment.

Subp. 3. **Removal of containment walls and floors.** After the postabatement visual inspection, removal of the walls and floors must occur in the order specified in items A and B.

A. When porous surfaces inside the containment have not been covered according to part 4620.3568, encapsulant must be used on those porous surfaces to securely seal down any residual fibers.

(1) The encapsulant must be applied after the containment has passed the visual inspection required under subpart 2.

(2) The encapsulation must comply with part 4620.3572.

(3) The encapsulant must be allowed to dry completely before final clearance air samples are taken according to part 4620.3594.

B. The walls and floors of the containment may be removed only after:

(1) the containment and the decontamination unit have passed the visual inspection specified in subpart 2; and

(2) any encapsulant that has been applied is completely dry.

Subp. 4. **Visual inspection after removal of containment walls and floors.** Following removal of the walls and floors of the containment, all surfaces previously in contact with the walls and floors of the containment and the interior decontamination unit must be inspected.

A. The inspection must be done according to subpart 2.

B. Whenever contamination is observed, the entire area must be cleaned, using a HEPA-filter equipped vacuum, wet wiping, or both, until no contamination is visible.

Subp. 5. **Completion of clearance air sampling.** Clearance air sampling must be performed and samples analyzed according to part 4620.3596, 4620.3597, or 4620.3598, before removal of critical barriers and the decontamination unit.

Subp. 6. **Removal of critical barriers.** Critical barriers must be:

A. removed after the containment and the decontamination unit have passed the visual inspection specified in subpart 4 and completion of clearance air sampling as specified in subpart 5;

B. removed after the contracting entity grants permission to remove the barriers;

C. removed before the decontamination unit is disassembled; and

D. disposed of as asbestos-containing waste.

Subp. 7. **Final visual inspection of asbestos work area.** Areas where critical barriers had been placed must be inspected and cleaned as specified in subpart 4 to ensure that no surface contamination is visible.

A. Whenever contamination is observed, the entire area must be cleaned, using a HEPA-filter equipped vacuum and wet wiping, or both, until no contamination is visible.

B. If contamination is found, the asbestos work area must be cleaned and cleared as specified in subpart 5.

Subp. 8. **Replacement of heating, ventilating, and air-conditioning system filters.** The interior surfaces of ventilation system ductwork must be decontaminated when a visual inspection indicates the presence of asbestos-containing material. When contamination is indicated, items A to C apply.

A. Except for small residential abatement, all disposable system filters that serve the asbestos work area must be:

- (1) replaced at the conclusion of the project; and
- (2) disposed of as asbestos waste.

B. A person performing small residential abatement must advise the owner of the residence of the need to replace disposable filters from heating, ventilation, and air-conditioning systems once the project is complete.

C. All nondisposable filters must be cleaned and decontaminated by the person performing abatement after the project is complete.

Subp. 9. **On-site handling of asbestos-containing waste.** Asbestos-containing waste must be handled on site according to this subpart.

A. Metal or fiber drums with locking ring tops must be used for disposal of asbestos-containing waste material that contains sharp edges, unless the sharp edges can be covered or blunted.

B. For asbestos-containing waste material that does not have sharp edges, bags of at least six-mil polyethylene must be used. Bags must be:

- (1) clear;
- (2) goosenecked before sealed; and
- (3) doubled to prevent leakage.

Statutory Authority: *MS s 144.05; 326.70 to 326.81*

History: *20 SR 2765*

4620.3580 GLOVE BAG PROCEDURES.

Subpart 1. **Application.** When a portion of a project includes the removal, encapsulation, or enclosure of less than 25 linear feet of asbestos-containing pipe lagging or less than ten square feet of asbestos-containing material per room, for that portion of the project the person performing abatement may use the glove bag procedures in this part instead of the procedures in parts 4620.3566 to 4620.3575, subparts 1 to 8.

In process areas of facilities not accessible to the general public and designated in Division B, D, or E of the 1987 edition of the Standard Industrial Classification Manual, asbestos-containing material may be abated in quantities up to 25 linear feet or ten square feet for each 15,000 square foot area of floor space using the glove bag procedures in this part instead of the procedures in parts 4620.3566 to 4620.3575, subparts 1 to 8. Division B, D, and E of the 1987 edition of the Standard Industrial Classification Manual are incorporated by reference and are not subject to frequent change. A copy of this material is available from the State Law Library, Minnesota Judicial Center, 25 Rev. Dr. Martin Luther King Jr. Blvd., St. Paul, MN 55155, or for loan or inspection from the Barr Library of the Minnesota Department of Health or through the Minitex interlibrary loan system.

Subp. 2. **Placement of remote decontamination unit.** A remote decontamination unit must be available for any individual performing the glove bag operation before the glove bag is set up. The remote decontamination unit must be used whenever the individual leaves the asbestos work area. The remote decontamination unit must be:

A. placed within 20 feet of the glove bag operation; or

B. used with the procedures in subitems (1) and (2) to prevent contamination of any area between the glove bag operation and the remote decontamination unit.

(1) For an individual wearing a single layer of protective clothing, before leaving the asbestos work area, the individual must use a HEPA-filter equipped vacuum to remove contamination from protective clothing and exposed body surfaces. A clean second layer of protective clothing must be placed over existing protective clothing before proceeding to the remote decontamination area.

(2) For an individual wearing two layers of protective clothing, before leaving the asbestos work area, the individual must use a HEPA-filter equipped vacuum to remove contamination from the outer layer of protective clothing and exposed body surfaces. The individual must then remove the outer layer of protective clothing before proceeding to the remote decontamination unit.

Subp. 3. **Remote decontamination unit.** For each glove bag operation, a remote decontamination unit must be used that complies with part 4620.3569, subparts 1, items B to D, and 2.

Subp. 4. **Glove bag set-up procedure.** For each abatement project using a glove bag, the glove bag procedures in this subpart must be followed.

A. Before the glove bag operation begins, the area within ten feet of the glove bag operation must be cleaned using a HEPA-filter equipped vacuum, wet wiping, or both, until no dust nor debris is visible.

B. Polyethylene sheeting of at least one layer of six-mil or comparable material must be placed on the floor below the glove bag operation.

C. Glove bags must be constructed of transparent six-mil polyethylene.

D. If a glove bag is to be used on one portion of a continuous section of damaged or significantly damaged thermal system insulation, the entire section of damaged or significantly damaged thermal system insulation must be sealed in two layers of six-mil polyethylene sheeting. Edges of the sheeting must be secured with tape.

E. The glove bag must be attached so asbestos-containing material adjacent to the glove bag is not disturbed during glove bag preparation.

F. Removal and encapsulation of asbestos-containing material must be done inside the glove bag.

G. All openings in the glove bag, including openings from insertion of tools, sprayers, or HEPA-filter equipped nozzles must be securely sealed with tape before removal or encapsulation begins.

H. Before removal or encapsulation begins, the glove bag must be smoke tested for any breach in the seal.

(1) The smoke must be released inside the glove bag.

(2) To test the seal of the glove bag, pressure must be applied to the outside of the glove bag.

(3) The glove bag must be visually inspected for smoke leaking or escaping from the glove bag, with attention given to the seams of the glove bag and points of attachment.

(4) All detectable leaks must be repaired with tape before removal or encapsulation of the asbestos-containing material.

Subp. 5. **Asbestos removal or encapsulation.** For each abatement project using a glove bag, the procedures in this subpart must be followed for the removal or encapsulation of asbestos-containing material using a glove bag.

A. Sliding the glove bag during or following asbestos removal or encapsulation is prohibited.

B. A glove bag must not be used more than once.

C. Asbestos-containing material must be adequately wet at all times during removal.

D. An airless or Hudson-type sprayer must be used to wet the asbestos-containing material.

E. Surfaces from which asbestos has been removed must be cleaned with a brush and wet wiped until no visible asbestos-containing material remains.

F. All exposed asbestos-containing material within the glove bag must be encapsulated with an encapsulant before the glove bag is removed according to part 4620.3572.

G. A visual inspection of the abated surface within the glove bag must be performed before the glove bag is removed. The glove bag operation is not complete until all visible asbestos-containing material is removed or encapsulated.

Subp. 6. **Completion of glove bag operation.** Every glove bag operation must be completed according to the procedures in this subpart.

A. Before the glove bag is removed, the interior surfaces of the glove bag must be cleaned using an airless or Hudson-type sprayer until no visible residue is seen on the top and vertical sides of the glove bag.

B. Tools must be removed from the glove bag as specified in this item.

(1) With hands in the gloves, tools must be grabbed and the gloves pulled inside out.

(2) The air in the glove bag must be evacuated using a HEPA-filter equipped vacuum.

(3) With the tools in them, the glove must be twisted and sealed with tape. The glove must then be cut off by cutting across the middle of the tape.

(4) The glove containing the tools must be labeled as asbestos-containing material.

(5) The glove containing the tools must be opened only inside another glove bag, decontamination unit, containment, or when submerged under water.

(6) The glove containing the tools, if transported off site, must be placed in a leak-tight container and labeled as asbestos-containing material.

(7) That portion of the sprayer that was inside the glove bag must be wet wiped as it is pulled out of the glove bag. The hole resulting from removal of the sprayer must immediately be sealed with tape.

C. The glove bag must be collapsed using a HEPA-filter equipped vacuum.

D. After the glove bag is collapsed, the glove bag must be squeezed tightly as close to the top of the glove bag as possible, twisted, and bound with tape.

E. The glove bag must then be cut from the pipe or other facility component and placed in a leak-tight container and the container handled according to part 4620.3575, subpart 9.

F. The area beneath the glove bag operation must be inspected for any dust or debris resulting from the glove bag operation.

G. Dust and debris from the glove bag operation must be assumed to be asbestos-containing material and must be cleaned using a HEPA-filter equipped vacuum or wet wiped.

H. The six-mil polyethylene sheeting must not be reused. The sheeting must be bagged, labeled as asbestos-containing waste, and handled as specified in part 4620.3575, subpart 9.

Subp. 7. **On-site handling of asbestos-containing waste.** On-site handling of asbestos-containing waste from a glove bag operation must comply with part 4620.3575, subpart 9.

Statutory Authority: *MS s 144.05; 326.70 to 326.81*

History: *20 SR 2765; 33 SR 739*

4620.3581 MINI-CONTAINMENT PROCEDURES.

Subpart 1. **Mini-containment.** When a portion of a project includes abatement of less than 25 linear feet of asbestos-containing pipe lagging or less than ten square feet of asbestos-containing material per room, for that portion of the project, the person performing abatement may use the mini-containment procedures in this part instead of the procedures in parts 4620.3566 to 4620.3575.

In process areas of facilities not accessible to the general public and designated in Division B, D, or E of the 1987 edition of the Standard Industrial Classification Manual, asbestos-containing material may be abated in quantities up to 25 linear feet or ten square feet for each 15,000 square foot area of floor space using the mini-containment procedures in this part. Divisions B, D, and E of the 1987 edition of the Standard Industrial Classification Manual are incorporated by reference and are not subject to frequent change. A copy of this material is available from the State Law Library, Minnesota Judicial Center, 25 Rev. Dr. Martin Luther King Jr. Blvd., St. Paul, MN 55155, or for loan or inspection from the Barr Library of the Minnesota Department of Health or through the Minitex interlibrary loan system.

Subp. 2. **Remote decontamination.** Before proceeding to the remote decontamination unit, individuals performing mini-containment operations must:

- A. remove the outer layer of clothing worn during mini-containment abatement;
- B. vacuum clean all exposed parts of the body and hair using a HEPA-filter equipped vacuum cleaner; and
- C. don a nonpermeable layer of protective clothing which covers all body surfaces except the face and hands.

Subp. 3. **Remote decontamination unit.** A remote decontamination unit must be available that complies with part 4620.3569, subparts 1, items B to D, and 2. The remote decontamination must be:

- A. available in the facility prior to the start of mini-containment operations;
- B. used by individuals following mini-containment operations for each asbestos work area; and
- C. placed in an area to minimize contamination of the area between the asbestos work area and the remote decontamination unit.

Subp. 4. **Mini-containment set-up procedure.** All mini-containment operations must comply with this subpart.

A. Before the mini-containment operation begins, the area within ten feet of the mini-containment operation must be cleaned using a HEPA-filter equipped vacuum, wet wiping, or both, until no dust nor debris is visible.

- B. A mini-containment must:
 - (1) be constructed of one layer of six-mil polyethylene sheeting or comparable material;
 - (2) be equipped with a HEPA-filter equipped vacuum or a HEPA-filter equipped ventilation system so air pressure within the mini-containment is negative with respect to the air in the area outside the mini-containment; and

(3) have all seams in the polyethylene sheeting sealed.

Subp. 5. **Asbestos removal or enclosure.** All persons using a mini-containment to perform abatement must comply with this subpart.

A. Negative air pressure within the mini-containment must be maintained until the procedures in subpart 6, item G, are completed.

B. Surfaces from which asbestos-containing material has been removed must be thoroughly cleaned until no visible asbestos-containing material remains.

C. All exposed asbestos-containing material within the mini-containment must be encapsulated according to part 4620.3572 before the mini-containment is removed.

Subp. 6. **Completion of mini-containment operation.** Every mini-containment operation must be completed according to the procedures in this subpart.

A. All tools and equipment used in the mini-containment must be wet wiped until no visible residue remains.

B. The wet wiped tools and equipment must be passed through the mini-containment door in a sealed, leakproof container.

C. The leakproof container containing the tools must be opened only inside another mini-containment, decontamination unit, containment, or when submerged under water.

D. If the leakproof container with the tools is transported off-site, the container must be labeled as asbestos-containing material.

E. After the asbestos removal, encapsulation, or enclosure is complete, the interior of the mini-containment must:

(1) be cleaned using HEPA-filter equipped vacuuming, wet wiped, or both;
or

(2) have an encapsulant applied to the interior of the mini-containment.

F. Before the mini-containment is removed, a visual inspection of the interior of the mini-containment and the abated surfaces must be performed as specified in part 4620.3575, subpart 2.

G. The mini-containment must be removed as specified in this item. The mini-containment must be removed by:

(1) sealing the door and collapsing the containment using a HEPA-filter equipped vacuum; or

(2) tearing down the mini-containment only after the results of clearance air sampling performed according to parts 4620.3594 to 4620.3598 indicate that fiber levels within the mini-containment do not exceed the clearance standard or alternative clearance standard in either part 4620.3100, subpart 2b or 10a.

Statutory Authority: *MS s 144.05; 326.70 to 326.81*

History: *20 SR 2765*

4620.3582 REMOVAL OF ENTIRE FACILITY COMPONENTS.

Subpart 1. **Applicability.** A person performing abatement may use the procedures in this part as an alternative to the procedures in parts 4620.3566 to 4620.3575 when the criteria in subpart 2 are met.

Subp. 2. **Conditions for removal of entire facility components.** The procedures in this part may be used to remove entire facility components with intact asbestos-containing material when the:

A. amount of asbestos-containing material to be glove bagged does not exceed 25 linear feet per room;

B. asbestos-containing material or its covering to be removed is not damaged; and

C. glove bag procedures in part 4620.3580 are followed.

Subp. 3. **Procedures.** The work practices of this subpart must be followed in the sequence provided.

A. Before disturbing the asbestos-containing material, cleaning of the area within ten feet of the asbestos-containing material to be removed must be completed according to part 4620.3566.

B. The asbestos-containing material or its covering to be removed must be wet with amended water before wrapping.

(1) The covering must not be broken to wet the asbestos-containing material.

(2) The asbestos-containing material and its covering must remain wet until final disposal.

C. The facility component to be removed must be wrapped in two layers of six-mil polyethylene sheeting.

D. The polyethylene sheeting must be sealed with tape or a comparable material to provide an airtight seal around the facility component to be removed.

E. Areas which will be cut to release the facility component must be free of asbestos.

(1) When a glove bag is used to provide an asbestos-free surface, the glove bag must be attached to the polyethylene wrap.

(2) After the glove bag has been removed from the structure, the encapsulated ends must be wrapped in six-mil polyethylene sheeting and sealed with tape or a comparable material.

F. If the facility component is not located on the ground or floor, the facility component must be:

(1) supported while being released; and

(2) lowered to the ground or floor and not dropped or thrown.

G. Facility components must be labeled with asbestos warning labels and handled according to part 4620.3575, subpart 9.

H. If asbestos-containing material is removed from the facility component removed under this part, removal must be done according to parts 4620.3560 to 4620.3575.

Statutory Authority: *MS s 144.05; 326.70 to 326.81*

History: *20 SR 2765*

4620.3585 DEMOLITION BY DESTRUCTION TO THE GROUND.

Subpart 1. **Applicability.** This part may be used when a facility or portion of a facility:

A. will be subjected to demolition by destruction to the ground within 24 hours of the completion of asbestos-related work; and

B. has been secured to prevent entry following the completion of asbestos-related work.

Subp. 2. **Exceptions.** When demolition by destruction to the ground is performed as specified in subpart 1, the person performing asbestos-related work must comply with parts 4620.3000 to 4620.3724, except for parts 4620.3568, subparts 1 to 4; 4620.3575, subparts 3, 4, and 8; and 4620.3594.

Subp. 3. **Securing facility following asbestos-related work.** To secure the facility or portion of the facility to be demolished by destruction to the ground, the person performing abatement must board up all windows, doorways, or other points of entry on the foundation and first levels of the facility or portion of the facility after asbestos-related work has been completed.

4620.3585 CLEAN INDOOR AIR

136

Subp. 4. **Demolition prior to asbestos-related work.** Abatement must comply with subpart 5 when:

A. a facility or portion of a facility is demolished by destruction to the ground; and

B. friable asbestos-containing material is present in amounts greater than six square feet or ten linear feet but less than 160 square feet or 260 linear feet for a former single- or multifamily dwelling or greater than 260 linear feet, 160 square feet, or 35 cubic feet in other facilities.

Subp. 5. **Abatement following facility demolition.** When a facility or portion of a facility is demolished as described in subpart 4, the person performing abatement must comply with items A to D.

A. The site must be secured and posted with warning signs that state: "DANGER. ASBESTOS. CANCER AND LUNG DISEASE HAZARD. AUTHORIZED PERSONNEL ONLY. RESPIRATORS AND PROTECTIVE CLOTHING ARE REQUIRED IN THIS AREA."

B. Notification of the project must be given to the commissioner as specified in part 4620.3420.

C. A person licensed as specified in part 4620.3200 must be used for removal of asbestos-containing material from the demolition rubble.

D. Individuals handling asbestos-containing material at the site must be certified as specified in parts 4620.3300 and 4620.3310.

Statutory Authority: *MS s 144.05; 326.70 to 326.81*

History: *20 SR 2765*

4620.3592 INDOOR AIR MONITORING.

Subpart 1. **Applicability.** As part of every project, indoor air monitoring must be performed as specified in this part except that indoor air monitoring is not required:

A. when a project is performed in preparation for demolition of a facility and the facility will not be entered or occupied by any individual not involved with asbestos-related work during and after the project; or

B. if a domiciled owner of a single-family residence conducts a project in the single-family residence.

Subp. 2. **General.** Indoor air monitoring must be conducted outside the containment area during all asbestos-related work including preparation and cleanup from the time disturbance of asbestos-containing material occurs until the results of clearance air sampling indicate fiber levels in the air within the containment do not exceed the clearance standard or alternative clearance standard.

A. For each containment, two air samples must be collected simultaneously no less than once during every zero to five-hour period while abatement personnel are performing asbestos-related work.

B. One of the two indoor air monitoring samples required in item A must be collected within ten feet of the entrance to the decontamination unit. The other air sampling location must be selected to detect failures in the containment.

C. Sample collection must be performed within ten feet of the containment.

D. Sample collection and analysis must comply with this part and part 4620.3597, subparts 2 to 4.

Subp. 3. **Evacuation and corrective measures.** If, during the project, the fiber concentration in air measured outside the containment exceeds the indoor air standard, or the

alternative indoor air standard, or one or more samples are too heavily loaded to allow for quantitative analysis, the steps in items A and B must take place.

A. Except as noted in subpart 4, the occupied area immediately adjacent to the asbestos work area must be evacuated.

B. Evacuated areas must not be reoccupied until:

(1) the containment barriers are examined by the site supervisor for holes or separations in the barriers and any holes or separations are repaired;

(2) the negative pressure of the containment is checked by the site supervisor and if not in compliance with part 4620.3570, is brought into compliance;

(3) the areas adjacent to the containment are cleaned using HEPA-filter vacuum cleaning, wet wiping methods, or both;

(4) following completion of subitems (1) to (3), five air samples have been collected simultaneously according to parts 4620.3596 and 4620.3597 in the area where elevated fiber levels occurred; and

(5) analysis indicates that the fiber concentration in all air samples collected under subitem (4) does not exceed the indoor air standard or the alternative indoor air standard.

Subp. 4. **Suspected nonasbestos dust.** When elevated fiber concentrations in the air outside the containment are suspected to be from nonasbestos dust in the air, evacuation of the occupied areas immediately adjacent to the asbestos work area may be delayed, provided the actions in this subpart are taken immediately.

A. The indoor air monitoring samples which indicate elevated fiber concentrations must be reanalyzed by transmission electron microscopy to distinguish between asbestos and nonasbestos fibers greater than five microns in length with an aspect ratio of three-to-one. Repeat analysis under this item must meet the requirements of "Mandatory Transmission Electron Microscopy Method," Code of Federal Regulations, title 40, chapter I, subchapter R, part 763, subpart E, appendix A, section II, Parts A, E, F, H, I, and J, amended through October 30, 1987, and as qualified in subitems (1) and (2).

(1) Code of Federal Regulations, title 40, chapter I, subchapter R, part 763, subpart E, appendix A, section II, part A, is modified as follows:

(a) The definition of "aspect ratio" is modified to read:

"3. "Aspect ratio" -- a ratio of the length to the width of a particle. Minimum aspect ratio as defined by this method is equal to or greater than 3:1."

(b) The definition of "fiber" is modified to read:

"9. "Fiber" -- a structure greater than or equal to five microns in length with an aspect ratio (length to width) of 3:1 or greater and having substantially parallel sides."

(2) Code of Federal Regulations, title 40, part 763, subpart E, appendix A, section II, part F, is modified as follows:

(a) Paragraph 9(a) is modified to read:

"9. Recording Rules.

a. Any continuous grouping of particles in which an asbestos fiber with an aspect ratio greater than or equal to 3:1 and a length greater than or equal to 5.0 microns is detected shall be recorded on the count sheet. These will be designated asbestos structures and will be classified as fibers, bundles, clusters, or matrices. Record as individual fibers any contiguous grouping having 0, 1, or 2 definable intersections. Groupings having more than 2 intersections are to be described as cluster or matrix. An intersection is a nonparallel touching or crossing of fibers, with the projection having an aspect ratio of 3:1 or greater. See the following Figure 2:"

(b) Paragraph 9(a), figure 2, the portion entitled "DO NOT COUNT AS STRUCTURES," is modified by changing the aspect ratio from "5:1" to "3:1" and the micrometer length from "0.5" to "5.0."

(c) Paragraph 9(a)(i) is modified to read:

"i. Fiber. A structure having minimum length greater than or equal to five microns and an aspect ratio (length to width) of 3:1 or greater and substantially parallel sides. Note the appearance of the end of the fiber, i.e., whether it is flat, rounded, or dovetailed."

(d) Paragraph 10(a) is modified to read:

"a. Fiber. A structure having minimum length greater than or equal to 5 microns and an aspect ratio (length to width) of 3:1 or greater and substantially parallel sides. Note the appearance of the end of the fiber, i.e., whether it is flat, rounded, or dovetailed."

B. If the analysis results obtained according to item A indicate the concentration of asbestos fibers in the air exceeds 0.01 fibers per cubic centimeter of air, the occupied area immediately adjacent to the asbestos work area must be evacuated and not reoccupied until the corrective measures of subpart 3, item B, have been performed and documented.

Subp. 5. **Indoor air monitoring during glove bag or mini-containment procedures.** When the glove bag or mini-containment procedures in parts 4620.3580 and 4620.3581 are used, indoor air monitoring must be performed according to this subpart.

A. At least two indoor air samples per room must be collected continuously from the time of initial disturbance of the asbestos-containing material until the time all glove bags or mini-containments have been removed in the room.

B. Indoor air samples during glove bag or mini-containment procedures must be collected within ten feet of the glove bag or mini-containment operation.

C. Sample collection and analysis must be completed according to subpart 4, item A, or part 4620.3597, subparts 2 to 4.

D. The glove bag or mini-containment operation is not complete and the asbestos work area must not be reoccupied until each of the indoor air samples has been analyzed and the result of each sample indicates a fiber level below the indoor air standard or the alternative indoor air standard.

E. Except as noted in item F, if any indoor air sample result exceeds the indoor air standard or the alternative indoor air standard, or if any indoor air sample is too heavily loaded to be quantitatively analyzed, subitems (1) to (3) must be followed.

(1) The area where the glove bag or mini-containment operation was performed must be recleaned and reinspected according to part 4620.3575, subpart 4.

(2) After recleaning and reinspection, at least two indoor air samples must be collected according to item C within ten feet of the area where the glove bag or mini-containment operation was performed.

(3) If any air sample result exceeds the indoor air standard or alternative indoor air standard, subitems (1) and (2) must be repeated.

F. When elevated fiber concentrations in the asbestos work area are suspected to be from nonasbestos dust in the air, the asbestos work area may be reoccupied if the following actions are taken:

(1) the actions required in subpart 4, item A, must be performed immediately; and

(2) if the analysis results obtained according to subpart 4, item A, indicate the concentration of asbestos fibers in the air exceeds 0.01 fibers per cubic centimeter of air, or if any indoor air sample is too heavily loaded to be quantitatively analyzed, the asbestos work area must be evacuated and the actions required in item E must be taken immediately.

Statutory Authority: *MS s 144.05; 326.70 to 326.81*

History: *20 SR 2765*

4620.3594 CLEARANCE AIR SAMPLING.

Subpart 1. **General.** When enclosure, removal, or encapsulation is completed during an abatement, clearance air sampling must be performed to ensure that fiber levels in the air within the containment area do not exceed the clearance standard or alternative clearance standard.

A. The asbestos containment area must not be reoccupied until compliance with subitem (1) or (2) is achieved:

(1) each of five clearance air samples, collected according to subpart 2, is less than or equal to the clearance standard or the alternative clearance standard; or

(2) for a small residential abatement each of three clearance air samples, collected according to subpart 2, are less than or equal to the clearance standard.

B. If any clearance air sample result exceeds the clearance standard or alternative clearance standard, or any clearance air sample is too heavily loaded to be quantitatively analyzed, the containment area must be recleaned and reinspected according to part 4620.3575, subpart 4. Following compliance with part 4620.3575, subpart 4, clearance air sampling must be repeated according to this subpart.

Subp. 2. **Clearance air sampling procedures.** Clearance air sampling must be conducted in the containment area after the containment has been cleaned thoroughly, dried completely, and passed the visual inspection required under part 4620.3575, subpart 4.

A. The critical barriers specified in part 4620.3567 must remain in place.

B. The decontamination unit must remain in place and remain operational.

C. Negative pressure within the containment must be maintained until analysis of clearance air samples is complete.

D. The clearance air sampling sites must be selected on a random basis within the containment to provide unbiased and representative sampling of the air within the containment.

E. Clearance air sampling must be performed with equipment that has been cleaned and decontaminated before use.

F. Clearance air sampling must be conducted as specified in subitems (1) to (3).

(1) Except for clearance air sampling specified in part 4620.3581, subpart 6, item G, subitem (2), before clearance air sampling, all surfaces must be blown with the air from a one horsepower leaf blower to agitate the air and reentrain loose fibers in the air within the containment.

(2) Except for clearance air sampling specified in part 4620.3581, subpart 6, item G, subitem (2), stationary fans must be placed in locations that do not interfere with air monitoring equipment. Fan air must be directed toward the ceiling. One fan must be used for each 10,000 cubic feet of containment area.

(3) When electrical power is provided, the power supply equipment must be underwriter laboratory approved and not modified. Wiring must be grounded and the circuits protected by ground fault interrupt devices.

G. Equipment such as fans and pumps must be wet wiped with clean water and disposable wipes before removal from the containment.

Statutory Authority: *MS s 144.05; 326.70 to 326.81*

History: *20 SR 2765*

4620.3596 GENERAL REQUIREMENTS FOR AIR MONITORING.

The air monitoring samples required by parts 4620.3592 and 4620.3594 must be collected as specified in this part.

A. All air monitoring sample collection must be conducted by an individual who is either an asbestos worker or asbestos site supervisor and who:

(1) has completed a Minnesota asbestos air sampling course permitted by the commissioner under part 4620.3704;

(2) is certified as a certified industrial hygienist by the American Board of Industrial Hygiene; or

(3) before July 1, 1996, has completed the National Institute for Occupational Safety and Health (NIOSH) course number 582, entitled Sampling and Identification of Airborne Asbestos, or a course equivalent to the NIOSH 582 course.

B. Air monitoring sample cassettes must be submitted for analysis on the day collected.

C. The contract for air monitoring sample analysis must specify that results must be available orally or in writing no later than 48 hours after submission for analysis or before disassembly of the containment, whichever is earlier.

Statutory Authority: *MS s 144.05; 326.70 to 326.81*

History: *20 SR 2765*

4620.3597 PHASE CONTRAST MICROSCOPY.

Subpart 1. **Phase contrast microscopy air sample analysis.** Analysis by phase contrast microscopy must comply with National Institute for Occupational Safety and Health (NIOSH) Method 7400, revision number 3, titled "Fibers" published in the NIOSH Manual of Analytical Methods, Third Edition, August 1994 supplement or equivalent methods. This document is incorporated by reference, is not subject to frequent change, and is available through the Minitex interlibrary loan system.

Subp. 2. **Procedures for establishing an alternative indoor air standard.** When collecting air monitoring samples to establish an alternative indoor air standard, the procedures in this part apply.

A. An alternative indoor air standard may be established only if background fiber levels in the asbestos work area exceed the indoor air standard before the start of abatement.

B. To establish an alternative indoor air standard, five air monitoring samples must be collected simultaneously and analyzed according to this part before the start of abatement including area preparation.

C. The alternative indoor air standard must be calculated as the upper bound of the range defined by the 95 percent confidence interval from the average of the result of the five indoor air monitoring samples.

D. Locations for air monitoring sample collection must be selected to provide suitable data for comparison with indoor air monitoring samples collected after abatement begins. Sample locations must be indoors and within ten feet of where the containment will be constructed.

E. The alternative indoor air standard applies only to the containment area where the air samples used to establish the alternative indoor air standard were collected.

Subp. 3. **Air monitoring sample collection and analysis.** When phase contrast microscopy is used to analyze air monitoring samples:

A. air volumes drawn through the filter cassette must be sufficient to determine fiber concentrations to 0.01 fibers per cubic centimeter of air;

B. a volume of 2,000 liters must be drawn through the filter cassette, except as noted in item C; and

C. when a volume of 2,000 liters cannot be drawn through the filter cassette, subitems (1) to (5) apply.

(1) More fields must be counted than the 100 microscope field maximum which is specified in NIOSH method 7400.

(2) The maximum number of fields to be counted must be determined by dividing 2,000 liters by the volume filtered and multiplying the result by 100 fields.

(3) Additional segments of the filter must be used for counting.

(4) If the cumulative fiber count reaches 100 fibers before the maximum number of fields have been counted, the analysis must stop.

(5) The concentration must be calculated based on the number of fibers and the number of fields counted.

Subp. 4. **Transitional air monitoring sample analysis.** Between July 1, 1996, and July 1, 1997, air monitoring samples must be analyzed by:

A. a laboratory that is accredited by the American Industrial Hygiene Association;

B. an analyst considered proficient by the American Industrial Hygiene Association's asbestos analyst registry program; or

C. a laboratory considered proficient in asbestos analysis by the American Industrial Hygiene Association (AIHA) Proficiency Analytical Testing (PAT) Program for phase contrast microscopy.

Subp. 5. **Air sample analysis.** Beginning July 1, 1997, air monitoring samples must be analyzed by:

A. a laboratory that is accredited by the American Industrial Hygiene Association;

or

B. an analyst considered proficient by the American Industrial Hygiene Association's asbestos analyst registry program.

Statutory Authority: *MS s 144.05; 326.70 to 326.81*

History: *20 SR 2765*

4620.3598 TRANSMISSION ELECTRON MICROSCOPY.

Subpart 1. **Use of alternative clearance standard.** When the alternative clearance standard is used, items A and B apply.

A. The transmission electron microscopy method for air monitoring sample collection and analysis must comply with Code of Federal Regulations, title 40, chapter I, subchapter R, part 763, subpart E, appendix A, section II, amended through October 30, 1987.

B. The volume of air drawn through a 25-millimeter filter cassette must be equal to or greater than 1,200 liters. The volume of air drawn through a 37-millimeter filter cassette must be greater than or equal to 2,800 liters. Both types of filter cassettes must contain a sample filter that has a pore size of 0.8 microns or smaller.

Subp. 2. **Air monitoring sample analysis.** Alternative clearance air monitoring samples analyzed by transmission electron microscopy must be analyzed by a laboratory accredited by the United States National Institute of Standards and Technology National Voluntary Laboratory Accreditation Program (NVLAP) for analysis of samples by transmission electron microscopy.

Statutory Authority: *MS s 144.05; 326.70 to 326.81*

History: *20 SR 2765*

4620.3600 [Repealed, 20 SR 2765]

4620.3700 [Repealed, 20 SR 2765]

4620.3702 APPLICATION FOR TRAINING COURSE PERMIT.

Subpart 1. **Applications other than renewal.** Except as provided in subpart 2, to obtain a permit from the commissioner for a training course, the training course provider must submit, to be received by the commissioner at least 60 days before the course is offered:

A. a completed application on a form provided by the commissioner, which seeks only information the commissioner reasonably considers necessary to identify the applicant and to determine whether the training course meets the statutory and regulatory requirements for a permit;

B. except for an air sampling course described in part 4620.3718, subpart 5, a nonrefundable application fee of \$500, which is not in the form of a personal check, payable to the Minnesota Department of Health;

C. the course curriculum;

D. a copy of all course materials;

E. the examination to be used and the answer key for the examination;

F. resumes of all course instructors which include information on coursework completed as specified in part 4620.3716, subpart 3, item A;

G. a copy of all enforcement actions taken against the provider by the United States Environmental Protection Agency and any other state; and

H. an example of the diploma to be issued by the provider to course participants who complete the course and pass the examination in the event the commissioner approves the permit application.

Subp. 2. **Renewal.** To obtain a renewal of a training course permit, the training course provider must submit, to be received by the commissioner at least 30 days before expiration of the current permit:

A. a completed renewal application on a form provided by the commissioner, which seeks only information the commissioner reasonably considers necessary to identify the applicant and to determine whether the training course meets the statutory and regulatory requirements for a permit;

B. except for an air sampling course described in part 4620.3718, subpart 5, a nonrefundable renewal fee of \$250, which is not in the form of a personal check, payable to the Minnesota Department of Health unless the course is for air sampling as described in part 4620.3718, subpart 5; and

C. documentation of any change in the information on the training course most recently submitted by the provider under subpart 1, items C to H.

Statutory Authority: *MS s 16A.1285; 144.05; 144.122; 326.70 to 326.81*

History: *20 SR 2765*

4620.3704 PERMITTING TRAINING COURSES.

Subpart 1. **Applications other than renewal.** For an application submitted under part 4620.3702, subpart 1, the commissioner shall issue a permit for the training course if the provider has complied with part 4620.3702, subpart 1, and if the provider, training course, and diploma meet all applicable requirements in parts 4620.3708 to 4620.3722.

Subp. 2. **Renewal applications.** For an application submitted under part 4620.3702, subpart 2, the commissioner shall renew the permit for the training course if:

A. the provider has complied with part 4620.3702, subpart 2;

B. the provider, training course, and diploma meet all applicable requirements in parts 4620.3708 to 4620.3722; and

C. for second and subsequent renewals of the same training course, the provider has presented the training course within the state while the permit was in effect and within two years before the date of the renewal application.

Subp. 3. **Reciprocity with other states.** A training course shall be permitted by the commissioner if the course is permitted or approved by another state's asbestos regulatory program equivalent to the Minnesota Department of Health's asbestos regulatory program and if the training course provider complies with part 4620.3702, subpart 1.

Subp. 4. **Denial of permit.** The commissioner shall deny an application for a training course permit if the applicant fails to comply with all applicable requirements in this part. Additional grounds for the commissioner to deny an application are stated in Minnesota Statutes, section 144.99, subdivision 8, paragraphs (a) and (b). An applicant:

A. must be notified in writing of the denial of the license application and reasons for the denial; and

B. is not required to pay a second fee if the applicant submits a second training course permit application according to subpart 2, within 30 days of the receipt of notice that the training course permit has been denied.

Subp. 5. **Duration of permit.** A training course permit shall be valid for one year.

Statutory Authority: *MS s 144.05; 326.70 to 326.81*

History: *20 SR 2765*

4620.3708 TRAINING COURSE DIPLOMAS.

If a training course is permitted under part 4620.3704, the training course provider must ensure that each enrollee who successfully completes the training course receives an original diploma which:

A. meets the requirements of Code of Federal Regulations, title 40, chapter I, subchapter R, part 763, subpart E, appendix C, section I, part C, paragraph (1), as amended through February 3, 1994;

B. indicates the location of the course; and

C. clearly states: "Approved by the State of Minnesota under Minnesota Rules, parts 4620.3702 to 4620.3722."

Statutory Authority: *MS s 144.05; 326.70 to 326.81*

History: *20 SR 2765*

4620.3710 ADVANCE NOTICE AND AMENDMENTS.

The training course provider must submit to the commissioner, by mail or facsimile, on a form provided by the commissioner, which is consistent with this part:

A. a notice of the date, time, location, and training course instructors of each permitted training course to be presented by the course provider, so the commissioner receives the notice at least 14 calendar days before the training course begins;

B. an amended notice for any change in the information contained in the original notice described in item A, other than an advancement of the training course date described in item C, so the commissioner receives the amended notice before the permitted training course begins;

C. an amended notice for any change in the date of the training course which advances the beginning date of the course, so the commissioner receives the amended notice at least 14 calendar days before the training course begins;

D. a notice of any change in the course curriculum or course materials submitted to the commissioner in part 4620.3702, other than the date, time, or location of the course or any information on a course instructor, so the commissioner receives the notice at least 30 calendar days before the training course begins; and

4620.3710 CLEAN INDOOR AIR

144

E. a notice of any change in any information submitted to the commissioner under part 4620.3702 on any training course instructor, so the commissioner receives the notice at least seven calendar days before the training course begins.

Statutory Authority: *MS s 14.05; 144.05; 326.70 to 326.81*

History: *20 SR 2765*

4620.3712 ATTENDANCE REQUIREMENTS.

The training course provider must require participants to attend the entire training course as a condition for successful completion of the training course. A training course provider must:

A. maintain a daily sign-in log as documentation of attendance for each training course; and

B. submit a copy of the daily sign-in log to the commissioner within 48 hours of completion of the training course.

Statutory Authority: *MS s 144.05; 326.70 to 326.81*

History: *20 SR 2765*

4620.3714 ENROLLMENT LIMITS.

The enrollment limits of this part apply to all permitted training courses.

A. The number of participants in a class must not exceed 24.

B. For training courses which require hands-on training, the participant-to-instructor ratio for hands-on training groups must not exceed eight-to-one.

Statutory Authority: *MS s 144.05; 326.70 to 326.81*

History: *20 SR 2765*

4620.3716 TRAINING COURSE CONDITIONS.

Subpart 1. **General.** The course requirements in this part apply to all permitted training courses.

Subp. 2. **Separation of training courses.** Asbestos worker, asbestos site supervisor, asbestos inspector, asbestos management planner, asbestos project designer, and air sampling courses must be taught separately.

Subp. 3. **Training course instructors.** If all instructors for a training course meet the requirements in this subpart, the commissioner shall approve the instructors as part of any permit issued for the training course.

All training course instructors must:

A. complete coursework in teaching methods and methods of evaluation to continually monitor the participants' progress;

B. have knowledge about all subjects to be presented by the instructor; and

C. apply the methods of adult instruction described in item A.

Subp. 4. **Written examinations.** All training courses must include a written examination that meets the requirements in this subpart.

A. Each training course must include a written examination that is given only at the end of the training course.

B. If the commissioner provides an applicable written examination, the training course provider must use the written examination provided by the commissioner.

C. Training course examinations must be administered by the training course provider unless notified of other arrangements in advance by the commissioner.

D. If the training course provider administers the examination, the training course provider must:

- (1) not reveal any portion of the examination contents to any participant before administering the examination;
- (2) ensure the security of the examination;
- (3) ensure that any participant who passes the examination does so on the participant's own merit; and
- (4) ensure that no written material other than the examination materials are allowed within the participant's viewing distance.

E. The training course provider must monitor the examination.

F. The written examination for an initial training course and refresher training course must incorporate questions about Minnesota law and rules related to asbestos and comply with the requirements of Code of Federal Regulations, title 40, chapter I, subchapter R, part 763, subpart E, appendix C, section I, part C, paragraph (2), amended through February 3, 1994.

G. The final written examination for an initial training course and refresher training course must meet the requirements in this item. A score of at least 70 percent is required to pass any training course written examination. The initial and refresher examination for an:

- (1) asbestos worker must consist of at least 50 multiple-choice questions;
- (2) asbestos site supervisor must consist of at least 100 multiple-choice questions;
- (3) asbestos inspector must consist of at least 50 multiple-choice questions;
- (4) asbestos management planner must consist of at least 50 multiple-choice questions;
- (5) asbestos project designer must consist of at least 100 multiple-choice questions; and
- (6) asbestos air sampling course must consist of at least 50 multiple-choice questions.

H. If a participant in a worker training course is unable to read the written examination, the training course provider must arrange to administer the examination in an alternative manner to the participant.

Subp. 5. **Successful completion of initial training course.** To successfully complete an initial training course, a participant must:

- A. attend the entire training course;
- B. demonstrate to the instructor proficiency during the hands-on portion of the course; and
- C. pass a closed-book written examination that complies with subpart 4.

Subp. 6. **Requirements for completion of refresher training courses.** To complete a refresher training course, the participant must:

- A. attend the entire training course; and
- B. pass a closed-book written examination that meets the requirements in subpart 4.

Subp. 7. **Training site.** All training courses must be presented in Minnesota.

Statutory Authority: *MS s 144.05; 326.70 to 326.81*

History: *20 SR 2765*

4620.3718 COURSE CONTENT AND LENGTH.

Subpart 1. **General.** Course content for training courses permitted by the commissioner must meet the requirements of this part.

Subp. 2. **Incorporation of Minnesota law and rules.** The training course provider must incorporate all asbestos-related Minnesota law and rules into all course materials and instruction wherever the course material and instruction addresses a subject covered by Minnesota law and rules.

Subp. 3. **Incorporation of new material into training course.** The training course provider must incorporate any new information into course material as required by the commissioner.

Subp. 4. **Length and content of initial asbestos-related training courses.** Initial training course length and content must meet the requirements in this subpart with one day equal to eight hours including breaks and lunch. The initial training course length and content requirements for:

A. asbestos workers must meet the length and content requirements in Code of Federal Regulations, title 40, chapter I, subchapter R, part 763, subpart E, appendix C, section I, part B, paragraph (1), amended through February 3, 1994;

B. asbestos site supervisors must meet the training course length and content requirements in Code of Federal Regulations, title 40, chapter I, subchapter R, part 763, subpart E, appendix C, section I, part B, paragraph (2), amended through February 3, 1994;

C. asbestos inspectors must meet the initial training course length and content requirements in Code of Federal Regulations, title 40, chapter I, subchapter R, part 763, subpart E, appendix C, section I, part B, paragraph (3), amended through February 3, 1994;

D. asbestos management planners must meet the initial training course length and content requirements in Code of Federal Regulations, title 40, chapter I, subchapter R, part 763, subpart E, appendix C, section I, part B, paragraph (4), amended through February 3, 1994; and

E. asbestos project designers must meet the initial training course length, content, and prerequisite requirements in Code of Federal Regulations, title 40, chapter I, subchapter R, part 763, subpart E, appendix C, section I, part B, paragraph (5), amended through February 3, 1994.

Subp. 5. **Length and content of air sampling training.** The initial training course for asbestos air sampling must be at least two days in length and meet the requirements in this subpart. The training must address:

A. the National Institute for Occupational Safety and Health's sampling method specified in part 4620.3597, subpart 1;

B. the sampling requirements and procedures in parts 4620.3592 to 4620.3598;

C. the sampling requirements and procedures specified in item B:

(1) the alternative indoor air standard;

(2) the alternative air clearance standard;

(3) the appropriate use of alternative standards;

(4) the number of fields to be counted and what to do when sampling volumes are below 2,000 liters;

(5) sampling techniques and requirements outside the containment during abatement;

(6) reasons to evacuate the facility, reentry after evacuation, and the reasons for delay of evacuation;

(7) sampling when negative air machines exhaust indoors;

(8) sampling during glove bag and mini-containment operations; and

(9) all phases of final containment clearance;

D. the Occupational Safety and Health Administration (OSHA) personal sampling requirements, procedures, and rationale, including calculation of time-weighted averages contained in Code of Federal Regulations, title 29, section 1926.1101, paragraphs (c) and (f), and appendix A, amended through September 29, 1995;

E. the Environmental Protection Agency (EPA) sampling requirements and procedures in Code of Federal Regulations, title 40, section 763.90, paragraph (i), and subpart E, appendix A, amended through April 15, 1988;

F. a comparison of the EPA, OSHA, and Minnesota air sampling requirements;

G. an introduction to analysis procedures;

H. sampling equipment calibration methods;

I. problems that may be encountered during sample collection;

J. decontamination of sampling equipment after sampling; and

K. hands-on sampling training, including;

(1) calibrating a rotameter using primary standard;

(2) measuring sampling pump flow rate using a rotameter;

(3) assembling sampling cassettes;

(4) setting up a sampling train for area sampling, collecting an air sample, and calculating the volume sampled;

(5) setting up, on a course participant, a sampling train for personal sampling;

(6) calculating time-weighted averages; and

(7) calculating the alternative indoor air standard described in part 4620.3597, subpart 2.

Subp. 6. **Hands-on training required.** For initial worker and site supervisor training, the course must include lectures, demonstrations, hands-on training, course review, and an examination as specified in part 4620.3716, subpart 4. The hands-on training must be at least 14 hours in length and must include:

A. demonstration by the instructor of the use of the respiratory protection devices with at least six different respirator types;

B. demonstration by the instructor and practice by each course participant of disassembly, cleaning, and reassembly of a half-face air purifying respirator and a full-face powered air purifying respirator;

C. practice by each course participant in identifying faults with half-face air purifying and full-face powered air purifying respirators with damaged or missing parts;

D. demonstration by the instructor of respirator fit checking;

E. demonstration by the instructor of respirator fit testing;

F. practice by each participant in donning full-body protective clothing;

G. demonstration by the instructor and practice by each course participant of simulated asbestos abatement of pipe insulation using a glove bag;

H. practice by each course participant constructing a decontamination unit;

I. practice by each participant constructing a containment and using a HEPA-filtered negative air machine to produce negative pressure in the containment;

J. demonstration by the instructor and practice by each participant of simulated abatement of ceiling spray-on; and

K. demonstration by the instructor and practice by each course participant of removing and replacing the filter elements in a HEPA-filtered negative air machine.

4620.3718 CLEAN INDOOR AIR

148

Subp. 7. **Annual refresher courses.** Annual refresher courses for asbestos project designers, asbestos management planners, asbestos inspector, asbestos site supervisors, and asbestos workers must:

A. meet the refresher course length and content specified in Code of Federal Regulations, title 40, chapter I, subchapter R, part 763, subpart E, appendix C, section I, part D, amended through February 3, 1994;

B. include a review of the topics covered in an initial training course as specified in subpart 5; and

C. comply with part 4620.3716, subpart 6.

Subp. 8. **Time limits for training courses.** If extra time is required to complete the prescribed instruction of a permitted training course or to add subjects not prescribed for the training course, the course may be extended if:

A. instruction is not more than eight hours per day, including lunch and other breaks; and

B. the training course is held no more than five successive days.

Statutory Authority: *MS s 144.05; 326.70 to 326.81*

History: *20 SR 2765*

4620.3720 RECORD KEEPING FOR TRAINING COURSE PROVIDERS.

Each provider of a permitted training course must comply with this part.

A. If the commissioner requests any or all of the documents described in item B, the provider must submit the requested documents so the commissioner receives them within seven calendar days of the commissioner's request.

B. For each permitted training course, the provider must keep for six years:

(1) copies of all training course materials;

(2) records of all instructor qualifications and commissioner approvals of instructors;

(3) records of examinations including the name of the person who proctors the examination, a copy of the examination, the date and location of each examination, and participant scores of each individual taking the examination;

(4) records of certificates issued on completion of the training course including the discipline, unique certificate number, training dates and location, recipient, examination date and location, and expiration date of the certificate; and

(5) records of the time and place the training course was held and the instructors for each day of the training course.

C. If a training course provider ceases to conduct training, the training course provider must notify the commissioner and give the commissioner the training records within 60 days of ceasing to provide training.

Statutory Authority: *MS s 144.05; 326.70 to 326.81*

History: *20 SR 2765*

4620.3722 TRAINING COURSE APPROVAL BEFORE JULY 1, 1996.

The provider of a training course which has full approval from the commissioner before July 1, 1996, may apply for renewal under part 4620.3702, subpart 2, no later than 30 days before the expiration date of the approval.

A. The provider of a training course which has provisional approval from the commissioner before July 1, 1996, may apply for a renewal permit under part 4620.3702, subpart 2, no later than 90 days after July 1, 1996.

B. All provisional approvals shall expire 91 days after July 1, 1996.

Statutory Authority: *MS s 144.05; 326.70 to 326.81*

History: *20 SR 2765*

4620.3724 VARIANCE.

The commissioner may grant a variance to part 4620.3710, item A, and, where space limitations prevent compliance with the specified requirements or where compliance with the specified requirements would create a greater hazard, to parts 4620.3566, 4620.3567, 4620.3568, subparts 1 to 4, 4620.3569, 4620.3571, subparts 1 and 2, and 4620.3575, subpart 3. A variance shall be considered only according to the procedures and criteria in parts 4717.7000 to 4717.7050.

Statutory Authority: *MS s 144.05; 326.70 to 326.81*

History: *20 SR 2765*

ENCLOSED SPORTS ARENAS

4620.3900 APPLICATION.

Parts 4620.3900 to 4620.4800 apply to owners/operators of ice arenas in which internal combustion engine-powered ice resurfacing machines are used; and owners/operators of enclosed sports arenas in which other internal combustion engine-powered vehicles or equipment are used for racing, competition, or for demonstration including, but not limited to, midget cars, motorcycles, and snowmobiles.

Statutory Authority: *MS s 144.05; 144.12*

4620.4000 DEFINITIONS.

Subpart 1. **Scope.** For the purposes of parts 4620.3900 to 4620.4800, the following terms shall have the meanings given them unless the context clearly indicates otherwise.

Subp. 2. **Applicant.** "Applicant" means a person who applies for a certificate pursuant to parts 4620.3900 to 4620.4800.

Subp. 3. [Repealed by amendment, L 1977 c 305 s 39]

Subp. 4. **Certificate.** "Certificate" means a certificate of approval issued by the commissioner of health pursuant to parts 4620.3900 to 4620.4800.

Subp. 5. **Certificate holder.** "Certificate holder" means a person to whom a certificate is issued pursuant to parts 4620.3900 to 4620.4800.

Subp. 6. **Enclosed sports arena.** "Enclosed sports arena" means any building with a roof and a majority of the sides closed in which sporting events and demonstrations occur.

Subp. 7. **Ice arena.** "Ice arena" means any building with a roof and a majority of the sides closed which contains an ice rink.

Subp. 8. **Person.** "Person" means any natural person, corporation, partnership, or other business association and includes the state and its political subdivisions.

Subp. 9. **Resurfacing machine.** "Resurfacing machine" means internal combustion engine-powered ice resurfacing machine.

Statutory Authority: *MS s 144.05; 144.12*

History: *L 1977 c 305 s 39*

4620.4100 RESURFACING MACHINES.

After July 1, 1973, no person shall own or operate an ice arena in which a resurfacing machine is used unless a certificate is issued by the commissioner of health. The certificate must be displayed in a conspicuous place in the ice arena. If all conditions specified in parts 4620.3900 to 4620.4800 are met, the commissioner of health shall issue a certificate.

Statutory Authority: *MS s 144.05; 144.12*

History: *L 1977 c 305 s 39*

4620.4200 CLEAN INDOOR AIR

150

4620.4200 APPLICATIONS FOR CERTIFICATE.

Applications for a certificate must be submitted on forms prescribed by the commissioner of health. The applicant must be the owner/operator of the arena. An application shall be submitted:

- A. prior to July 1, 1973, by all owners/operators of existing ice arenas;
 - B. prior to commencement of operation by all owners/operators of new ice arenas;
- and
- C. prior to subsequent change of the approved method of maintenance of required air quality conditions or the replacement or modification of the resurfacing machine. Modification of the resurfacing machine does not include routine maintenance or tune-ups.

Statutory Authority: *MS s 144.05; 144.12*

History: *L 1977 c 305 s 39*

4620.4300 DOCUMENTATION OF AIR QUALITY CONDITIONS.

The applicant must document that acceptable air quality conditions can be maintained. Such conditions are: one-hour average air concentrations of not more than 30 parts of carbon monoxide per million parts of air by volume (30 ppm), and one-hour average air concentrations of not more than 0.5 ppm of nitrogen dioxide.

The commissioner of health may refuse to issue a certificate if the applicant's documentation is insufficient to demonstrate that acceptable air quality conditions will be maintained during all hours of operation.

Statutory Authority: *MS s 144.05; 144.12*

History: *L 1977 c 305 s 39*

4620.4400 MAINTENANCE OF AIR QUALITY CONDITIONS.

Acceptable methods of maintenance of the required air quality conditions are:

- A. proper ventilation;
- B. proper mechanical adjustment of the internal combustion engine; and
- C. any other method acceptable to the commissioner of health. Such acceptance shall be based upon a reasonable demonstration by the certificate applicant that such alternate method is adequate to maintain the required air quality conditions.

When item B is proposed as a method of control, the name of the mechanic(s), the qualifications of the mechanic(s), and equipment proposed to be used must be included in the request.

Statutory Authority: *MS s 144.05; 144.12*

History: *L 1977 c 305 s 39; 17 SR 1279*

4620.4500 MEASUREMENT OF AIR QUALITY CONDITIONS.

Subpart 1. **Measurement requirements.** Air quality conditions shall be measured at least once per week. The measurement shall be made at board height at the red line of the ice 20 minutes after completion of resurfacing. The measurement shall be made each week at a time of maximum use of the resurfacing machine. This measurement shall be accepted as representing the one-hour average air concentration. A record of measurement findings shall be kept and made available to the commissioner of health upon request. Such additional measurements shall be made as considered necessary by the commissioner of health.

Subp. 2. **Methods of measuring.** Acceptable methods of measuring air quality conditions are:

- A. gas detector tubes certified by the National Institute of Occupational Safety and Health; and

B. any other method acceptable to the commissioner of health. The burden is on the certificate applicant to prove that such methods are as accurate and reliable as that specified in item A.

Statutory Authority: *MS s 144.05; 144.12*

History: *L 1977 c 305 s 39*

4620.4600 FAILURE TO MAINTAIN AIR QUALITY.

Subpart 1. **Corrective action necessary.** When one-hour averages of more than 30 ppm but less than 125 ppm of carbon monoxide and/or more than 0.5 ppm but less than 2 ppm of nitrogen dioxide exist in the arena, immediate corrective action must be taken. This may include an immediate increase in the ventilation rate and/or an increase in the interval between resurfacing operations. Subsequent tests shall be conducted to confirm the effectiveness of such action.

Subp. 2. **Report.** Whenever the conditions of subpart 1 occur, a report must be submitted to the commissioner of health within five working days explaining why the methods of air quality control had failed, what immediate corrective action was taken, and what action is planned to prevent recurrence of exceeding the air quality standards.

Subp. 3. **Substantial risk to health of persons.** One-hour average air concentrations of more than 125 ppm of carbon monoxide and/or more than 2 ppm of nitrogen dioxide constitute an imminent, substantial danger to the health of persons. The arena shall be closed immediately and all people evacuated. The arena may reopen when the air quality standards of part 4620.4300 are obtained and can be maintained. The same procedure prescribed in part 4620.4600, subpart 2, shall be followed.

Statutory Authority: *MS s 144.05; 144.12*

History: *L 1977 c 305 s 39*

4620.4700 OTHER INTERNAL COMBUSTION ENGINES.

After July 1, 1973, no person who owns or operates an enclosed sports arena open to the general public shall permit the operation of other internal combustion engine-powered equipment or vehicles for racing, competition, demonstration, or other purposes unless a certificate is issued by the commissioner of health. If all conditions specified in parts 4620.3900 to 4620.4800 are met, the commissioner of health shall issue a certificate. The certificate must be displayed in a conspicuous place in the arena.

Applications for a certificate must be submitted at least 45 days prior to the event and upon forms prescribed by the commissioner of health. The application must be submitted by both the owner/operator of the arena and the sponsor of the activities which involve use of internal combustion engines.

The provisions of parts 4620.4300, 4620.4400, 4620.4500, subpart 2, and 4620.4600, subparts 1 and 3, shall also apply. Air quality conditions shall be measured and reports made as directed by the commissioner of health depending upon the specific type of activity to be conducted in the building.

Statutory Authority: *MS s 144.05; 144.12*

History: *L 1977 c 305 s 39*

4620.4800 REVOCATION OR SUSPENSION OF APPROVAL; REINSTATEMENT.

The commissioner of health may suspend or revoke the approval granted pursuant to parts 4620.4100 and 4620.4700 upon the finding of violations of the provisions of parts 4620.3900 to 4620.4800. All proceedings shall be in accordance with the Minnesota Administrative Procedure Act, Minnesota Statutes, chapter 14.

A suspended or revoked certificate of approval shall be returned to the commissioner of health.

4620.4800 CLEAN INDOOR AIR

152

Reinstatement shall be in accordance with the suspension or revocation order and upon an adequate showing that the grounds for suspension or revocation shall not recur.

Statutory Authority: *MS s 144.05; 144.12*

History: *L 1977 c 305 s 39*

4620.4900 VARIANCE TO ENCLOSED SPORTS ARENA RULES.

The commissioner shall grant variances to parts 4620.3900 to 4620.4800, except part 4620.4300, only according to the procedures and criteria specified in parts 4717.7000 to 4717.7050.

Statutory Authority: *MS s 14.05*

History: *15 SR 1597*