

**TITLE 35: ENVIRONMENTAL PROTECTION**  
**SUBTITLE B: AIR POLLUTION**  
**CHAPTER I: POLLUTION CONTROL BOARD**  
**SUBCHAPTER c: EMISSION STANDARDS AND LIMITATIONS FOR**  
**STATIONARY SOURCES**

**PART 228**  
**ASBESTOS**

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**AUTHORITY:** Implementing Section 10 and authorized by Section 27 of the Environmental Protection Act (Ill. Rev. Stat. 1981, ch. 111 1/2, pars. 1010 and 1027).

**SOURCE:** Adopted as Chapter V: Hazardous Substances, Title I, Asbestos and Spray Insulation and Fireproofing, R71-16, 3 PCB 461, January 6, 1972, filed and effective January 24, 1972; Renumbered to Chapter 2: Air Pollution, Part VI: Asbestos and Spray Insulation and Fireproofing, R72-10, filed and effective June 27, 1975; codified at 7 Ill. Reg. 13612.

## SUBPART A: GENERAL PROVISIONS

### **Section 228.101 Authority**

Pursuant to the authority in Sections 9, 10 and 13 of the Environmental Protection Act (Ill. Rev. Stat. 1981, ch. 111 1/2, pars. 1001 et seq.) (Act) which empower the Pollution Control Board (Board) to adopt regulations forbidding the "sale, offer, or use for reasons of air pollution control" of any article, and to set "standards specifying the maximum amounts or concentrations of various contaminants that may be discharged into the atmosphere"; and to set standards for the issuance of permits for the operation of any equipment or facility capable of causing or contributing to air pollution; and to

promulgate "conditions regarding the... use of any... article determined by the Board to constitute an air pollution hazard;" and to adopt effluent standards limiting the amounts of contaminants that may be discharged into the water of Illinois, the Board adopts the following rules and regulations.

### **Section 228.102 Policy**

- a) It is the purpose of the General Assembly in adopting the Act to maintain and enhance the purity of the air and water of Illinois in order to protect health, welfare and the quality of life. Accordingly, it is hereby determined that the uncontrolled discharge of asbestos fiber into the environment tends to severely endanger the public health and welfare and that the uncontrolled spraying of fiber-containing materials unreasonably interferes with the enjoyment of life and property.
- b) It is the purpose of these regulations to control the amount of asbestos fiber released into the environment from the major sources of emission. Such control is necessary not only to protect those members of the public who are in proximity to heavy concentrations of asbestos fiber but also to safeguard the health of future generations endangered by the continuous discharge of asbestos fiber which can be toxic and which tends to be cumulative both in the atmosphere and in the human body.
- c) Where health can be protected by the adoption of an emission standard or of procedural safeguards, such a course has been pursued. In those instances where restriction is unfeasible because of the unusual nature of the emission source (spray asbestos at construction sites) a product ban has been resorted to. This prohibition has been made with full consideration given to the available alternative materials.
- d) It is also the purpose of these regulations to reduce the emission of non-asbestos particulate from spray-fireproofing and insulation. To protect against these emissions, the biological effects of which are unknown, procedural safeguards have been enacted.

### **Section 228.103 Definitions**

The terms which appear in this Part have the definitions specified in this Part and 35 Ill. Adm. Code 201 and 211.

"Asbestos": Any fiber or any mixture containing fiber of hydrated silicate mineral, which, on the basis of its crystalline structure, falls into one of two categories:

pyroxenes - chrysotile fiber; or  
amphiboles - crocidolite, amosite, tremolite, actinolite or anthophyllite fiber.

"Commercial activity": Any activity done for hire or having financial profit as a primary aim.

"Debris": Asbestos-containing waste produced by the demolition of a structure.

"Spraying": The pneumatic application of material used for fireproofing or insulation.

"Waste": Any asbestos-containing matter which has been or is intended to be discarded.

### **Section 228.104 Incorporations by Reference**

The following materials are incorporated by reference:

- a) ASME Power Test Code 27-1957, American Society of Mechanical Engineers, United Engineering Center, 345 East 47th Street, New York, NY 10017.
- b) Edwards, G. H., and Lynch, J. R., "The Method Used by the U. S. Public Health Service for Enumeration of Asbestos Dust on Membrane Filters," Ann. Occupational Hyg. (Oxford), 11(1):1-6, January, 1968.

## **SUBPART B: GENERAL REQUIREMENTS**

### **Section 228.121 Prohibition**

No commercial activity, not otherwise hereinafter prohibited, involving the potential discharge of visible amounts of asbestos fiber or asbestos-containing materials into the ambient air from the construction, alteration, repair or demolition of a structure or from the processing or manufacturing of asbestos-containing products, shall be conducted unless the person or entity in charge of such activity complies with the following:

- a) Personnel shall be designated to exercise full-time supervisory authority over all aspects of the activity from which the release of asbestos fiber into the environment could result, in such a manner as to insure compliance with the pertinent asbestos control regulations.
- b) Each employee engaged in such activity shall complete a course of instruction on the potential hazards of exposure to asbestos fiber, including the precautions that must be observed to prevent or restrict the dispersion of asbestos fiber into the environment.
- c) Facilities shall be provided and procedures instituted and supervised that prevent the removal from the site of visible amounts of asbestos-containing material on the clothing of the employees.

- d) Asbestos-containing wastes shall be immediately vacuumed or otherwise collected where vacuuming is impossible, and shall be placed in a container resistant to tearing or breaking under normal handling conditions, which shall be tightly sealed and clearly marked as containing asbestos waste. Such containers shall be placed directly upon a vehicle for disposal by burial at a sanitary landfill. Exception: This subsection (d) shall not apply to the demolition of a structure, except as provided in Section 229.141(d) and (e) or to the disposal of sludge waste except as provided in Section 228.156.

### **Section 228.123 Permit for Manufacture**

The manufacturing or processing of asbestos-containing products is prohibited unless the person or entity in charge of such activity has obtained a permit from the Illinois Environmental Protection Agency (Agency). Before obtaining such permit the applicant shall demonstrate compliance with Section 228.121 and such additional standards as are hereinafter specifically required.

## **SUBPART C: CONSTRUCTION, ALTERATION AND REPAIR OF STRUCTURE**

### **Section 228.131 Spray Asbestos Prohibited**

The spraying of asbestos-containing material is prohibited.

### **Section 228.132 Non-asbestos Spray Insulation**

Non-asbestos fibrous matter shall not be sprayed in an area open to the atmosphere unless the following procedures are taken:

- a) The entire floor or area to be sprayed shall be enclosed with plastic or plastic-coated tarpaulins in a manner which shall preclude the escape of fiber-containing material from the enclosure. All interior open areas such as elevator shafts and stairwells shall be enclosed in a manner which shall prevent the escape of fiber-containing material from the working area.
- b) The entire sprayed area, all ledges and surfaces including tarpaulins within the enclosure shall be thoroughly vacuumed upon completion of the spraying operation and immediately before the enclosure is dismantled.

### **Section 228.133 Enclosure for Asbestos Construction**

- a) The cutting, trimming, fitting or stripping of asbestos-containing material in the construction, alteration or repair of a structure which is done at the site of such structure in an area open to the atmosphere shall be conducted within a special enclosure designed to preclude the escape of asbestos fiber from the immediate area of such enclosure.
- b) The mechanical exhaustion of dust from such enclosure to the ambient air is prohibited unless such exhaust system is equipped with a properly sized fabric filter for dust collection or an equivalent device as approved by the Agency.

#### **Section 228.134 No Visible Emission**

Compliance with Sections 228.132 and 228.133 notwithstanding, visible emissions of fiber-containing material in an area open to the atmosphere shall be considered a violation.

#### **Section 228.135 Preclude Exposure to Circulating Air**

Asbestos-containing material applied in the construction, alteration or repair of a structure shall be coated with a sealant, provided with a cover or installed in some other manner so as to preclude emission of the asbestos-containing material to the circulating air. Any plenum or other structure coated with or containing asbestos-containing insulation and used in the circulation of air in a building shall be thoroughly cleaned of all debris and waste insulation.

### **SUBPART D: DEMOLITION**

#### **Section 228.141 Necessary and Practicable Safeguards**

Where the risk of public exposure to asbestos fiber from the dislodging of asbestos-containing materials is present, no demolition of a structure shall be initiated unless all safeguards necessary and practicable to reduce the emission of dust are taken. Such procedures shall include, but are not necessarily limited to:

- a) Boilers and pipes and steel members insulated or fireproofed with asbestos-containing material shall be wetted and stripped before toppling of walls is begun. This procedure shall be followed, where practicable, as to all other asbestos-lined surfaces. Such asbestos waste shall be immediately bagged and disposed of in accordance with Section 228.121(d).
- b) When demolition by toppling occurs such reasonable enclosure for dust emission control as is compatible with the character of the structure shall be employed.

- c) Before the demolition or toppling of any section or wall of the structure, adequate wetting to suppress the dust shall be employed.
- d) Asbestos-containing debris shall not be dropped or thrown from any floor but shall be transported by dust-tight chutes or buckets. Asbestos-containing debris in chutes or buckets shall be sufficiently wetted to preclude dust dispersion at the point of discharge.
- e) All asbestos-containing debris shall be thoroughly wetted before loading into trucks, other vehicles or containers. During transport such waste shall be enclosed or covered so as to prevent dust dispersion. Asbestos-containing debris shall be disposed by burial at a sanitary landfill.

## **SUBPART E: MANUFACTURING**

### **Section 228.151 Emission Standards; Sampling and Counting Procedures**

A factory, plant or enterprise which engages in the processing or manufacturing of any asbestos-containing product shall discharge no visible emission of particulate matter from such manufacturing or processing into the ambient air and shall emit no concentrations of asbestos fiber into the ambient air in excess of 2 fibers per cubic centimeter of air.

- a) Sampling of emissions shall be by the membrane filter method and according to the procedures recommended in the ASME Power Test Code 27-1957, or other procedures generally accepted by persons knowledgeable in the state of the art.
- b) Counting shall be according to the procedure outlined in Edwards, G. H., and Lynch, J. R., "The Method Used by the U. S. Public Health Service for Enumeration of Asbestos Dust on Membrane Filters," Ann. Occupational Hyg. (Oxford), 11(1):1-6, Jan. 1968; with 20 fields per sample, counted at random using phase contrast microscopy at 430 x magnification and counting only fibers 5 microns or greater in length, with a length to breadth ratio of 3 to 1 or greater.

### **Section 228.152 Venting of all Emissions to Central Sources**

Any factory, plant or enterprise which engages in the processing or manufacturing of any asbestos-containing product shall control all asbestos handling facilities so that exhaust air can be ducted through necessary air pollution control equipment and samples taken of the gases which are emitted into the ambient air.

### **Section 228.153 Inspection**

Any factory, plant or enterprise for which a permit is sought or has been granted pursuant to Section 228.122 shall be subject to inspection by the Agency at any reasonable time, without prior notice.

**Section 228.154 Monitoring and Reporting**

At a frequency to be determined by the Agency, any factory, plant or enterprise which engages in the processing or manufacturing of any asbestos-containing product shall sample the exhaust from such factory, plant or enterprise and submit the emission data to the Agency.

**Section 228.155 Process Wastewater Effluent Criteria**

A factory, plant or enterprise the manufacturing processes of which add asbestos fiber to water shall not discharge such process wastewater to the sewers or waters of Illinois unless such process wastewater is given the best available treatment consistent with technological feasibility and economic reasonableness.

**Section 228.156 Sludge Disposal**

Waste sludge containing asbestos and collected from settling ponds shall be enclosed during transport and shall be disposed by burial at a sanitary landfill.

**Section 228.157 Transportation of Asbestos-containing Products**

No product which may emit asbestos-fiber during its transportation shall be transported unless such product is enclosed so as to preclude the emission of asbestos fiber into the ambient air.

**Section 228.158 No Visible Emission**

Notwithstanding compliance with Section 228.156 and 228.157 the visible emission of particulate matter in the course of such transportation shall be considered a violation.

**SUBPART F: LOCAL ENFORCEMENT**

**Section 228.161 Obligation to Enforce**

It shall be the obligation of local governments as well as the Agency to enforce by appropriate means the requirements of Sections 228.121 and 228.156 through 228.158.



**Appendix A**  
**Rule into Section Table**

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**Appendix B**  
**Section into Rule Table**

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### **Apendix C Past Compliance Dates**

#### Rule 621

After June 30, 1972 commercial activities involving potential discharge of asbestos from the construction, alteration, repair or demolition of a structure or from the processing or manufacturing of asbestos-containing products were prohibited except in compliance with certain requirements.

#### Rule 631

The spraying of asbestos-containing materials was prohibited after March 31, 1972.

#### Rule 651

After June 30, 1972, factories, plants or enterprises engaged in processing or manufacturing of any asbestos-containing product were prohibited from discharging visible emissions of particulate matter or concentrations of asbestos fiber in excess of 2 per cubic centimeter.