

**CHAPTER 100**

**SAFETY AND HEALTH STANDARDS  
FOR PUBLIC EMPLOYEES**

**Authority**

N.J.S.A. 34:1-20, 34:1A-3(c), and 34:6A-25 et seq., specifically 34:6A-30, 31 and 32.

**Source and Effective Date**

R.1994 d.492, effective August 26, 1994.  
See: 26 N.J.R. 2776(a), 26 N.J.R. 3872(b).

**Executive Order No. 66(1978) Expiration Date**

Chapter 100, Safety and Health Standards for Public Employees, expires on August 26, 1999.

**Chapter Historical Note**

The original rules in Chapter 100, which were General Provisions of Title 12, Subtitle I, Bureau of Migrant Labor, were filed prior to September 1, 1969, and became effective on January 1, 1970. The original rules became ineffective on April 1, 1975 with the adoption of R.1975 d.101, which was filed and effective April 16, 1975. See: 7 N.J.R. 231(a). The Migrant Labor rules were repealed by R.1978 d.288, effective August 16, 1978. See: 10 N.J.R. 258(a), 10 N.J.R. 400(d). A new Chapter 100, Safety and Health Standards for Public Employees, was filed and became effective November 5, 1984 as R.1984 d.510. See: 16 N.J.R. 2057(a), 16 N.J.R. 3051(a).

Subchapter 12 was adopted as R.1986 d.285, and Subchapter 7 was recodified as Subchapter 17, effective July 21, 1986. See: 18 N.J.R. 811(b), 18 N.J.R. 1479(b). Subchapter 9 became effective September 19, 1988 as R.1988 d.451. See: 20 N.J.R. 1523(a), 20 N.J.R. 2391(a). Subchapter 11 became effective May 1, 1989 as R.1989 d.238. See: 21 N.J.R. 620(a), 21 N.J.R. 1144(a). Subchapter 8 was adopted as R.1989 d.357, effective July 3, 1989. See: 21 N.J.R. 1094(a), 21 N.J.R. 1829(b). Pursuant to Executive Order No. 66(1978), Chapter 100 was readopted as R.1989 d.536, effective September 22, 1989. See: 21 N.J.R. 2224(a), 21 N.J.R. 3299(b). Subchapter 10, Standards for Firefighters, was adopted as R.1993 d.28, effective January 4, 1993. See: 24 N.J.R. 73(a), 25 N.J.R. 180(b).

Pursuant to Executive Order No. 66(1978), Chapter 100 was readopted as R.1994 d.492. See: Source and Effective Date. See, also, section annotations.

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## SUBCHAPTER 1. GENERAL PROVISIONS

### 12:100-1.1 Title and citation

This chapter shall be known and may be cited as N.J.A.C. 12:100, Safety and Health Standards for Public Employees.

### 12:100-1.2 Authority

These rules are promulgated pursuant to the authority of the New Jersey Public Employees Organizational<sup>1</sup> Safety and Health Act, N.J.S.A. 34:6A-25 et seq.

<sup>1</sup> So in original. Probably should read "Occupational".

### 12:100-1.3 Purpose

The purpose of this chapter is to protect employees in the public sector by providing standards, which are at least as effective as the standards promulgated under Section 6 of the Federal Occupational Safety and Health Act of 1970, 29 USC 651 et seq.

### 12:100-1.4 Scope

This chapter shall apply to all employers, employees, and agencies subject to N.J.S.A. 34:6A-25 et seq., New Jersey Public Employees Occupational Safety and Health Act.

#### Case Notes

OSHA standards adopted in New Jersey could be applicable to scaffold collapse incident or recognized as prevailing safety standards in community. *Sanna v. National Sponge Co.*, 209 N.J.Super. 60, 506 A.2d 1258 (App.Div.1986).

### 12:100-1.5 Documents referred to by reference

The availability of standards and publications referred to in this chapter is explained in N.J.A.C. 12:100-7.

### 12:100-1.6 Validity

Should any section, paragraph, sentence or word of this chapter be declared for any reason to be invalid, such decision shall not affect the remaining portions of this chapter.

## SUBCHAPTER 2. DEFINITIONS

### 12:100-2.1 Definitions

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

"Act" means the New Jersey Public Employees Occupational Safety and Health Act, N.J.S.A. 34:6A-25 et seq.

"Approved" means acceptable to the Commissioner of Labor.

"CFR" means Code of Federal Regulations.

"Commissioner" means the Commissioner of Labor or his designee.

"Division of Workplace Standards" means the Division of Workplace Standards of the New Jersey Department of Labor, CN 054, Trenton, New Jersey 08625-0054.

"Employee" means any public employee, any person holding a position by appointment or employment in the service of an "employer" as that term is used in the Act and shall include any individual whose work has ceased as a consequence of, or in connection with, any administrative or judicial action instituted under the Act; provided, however, that elected officials, members of boards and commissions and managerial executives as defined in the New Jersey Employer-Employee Relations Act, N.J.S.A. 34:13A-1 et seq. shall be excluded from the coverage of the Act.

“Employer” means public employer and shall include any person acting directly on behalf of, or with the knowledge and ratification of:

1. The State, or any department, division, bureau, board, council, agency or authority of the State, except any bi-state agency; or
2. Any county, municipality, or any department, division, bureau, board, council, agency or authority of any county or municipality, or of any school district or special purposes district created pursuant to law.

“N.J.A.C.” means New Jersey Administrative Code.

“N.J.S.A.” means New Jersey Statutes Annotated.

“Shall” means a mandatory requirement.

“Serious injury” means any injury which requires treatment beyond first aid.

Amended by R.1986 d.285, effective July 21, 1986.  
See: 18 N.J.R. 811(b), 18 N.J.R. 1479(b).

The definition for “CFR” has been amended.  
Amended by R.1987 d.439, effective November 2, 1987.  
See: 19 N.J.R. 1533(a), 19 N.J.R. 2060(b).  
Deleted text from CFR “in effect on ...”.

### SUBCHAPTER 3. ADMINISTRATION

#### 12:100-3.1 Scope of subchapter

This subchapter shall apply to the administration of the safety and health standards mandated by this chapter.

#### 12:100-3.2 Compliance

(a) Every employer shall comply with the provisions of this chapter.

(b) Every employee shall comply with the provisions of this chapter as they pertain to him or her.

(c) When an employer has provided personal protection equipment in accordance with this chapter, the employee shall utilize such equipment when the hazard for which the equipment was provided exists.

(d) Every employer shall provide a reasonable safeguard against any recognized hazard which could cause serious injury or death to the employees.

(e) Every employer shall take all prudent measures to comply with written recommendations made by the commissioner, the Commissioner of Community Affairs or the Commissioner of Health to reduce the risk of exposure to unsafe or unhealthy conditions which have been shown to be detrimental to employee health or safety. This provision shall apply for hazards not specifically covered by a standard in this chapter or a standard referenced in this chapter.

#### 12:100-3.3 Interface of state agencies

(a) The New Jersey Department of Labor shall inspect under the provisions of this chapter where the provisions relate to safety issues in accordance with N.J.S.A. 34:6A-35.

(b) The New Jersey Department of Health shall inspect under the provisions of this chapter where the provisions relate to health issues in accordance with N.J.S.A. 34:6A-37 and 34:6A-38.

(c) The New Jersey Department of Community Affairs shall inspect under the provisions of this chapter where the provisions relate to building safety, structural safety, and fire safety in accordance with N.J.S.A. 34:6A-38.

(d) The provisions of (a) through (c) above shall not be construed to diminish the primary responsibility of the Commissioner of Labor for administering and enforcing the State plan in accordance with N.J.S.A. 34:6A-29.

### SUBCHAPTER 4. GENERAL STANDARDS

#### 12:100-4.1 Scope of subchapter; “employer” defined

(a) This subchapter shall apply to general industry safety and health standards adopted by reference.

(b) As used in this subchapter, the term employer shall mean public employer and shall not include any private employer performing under this subchapter on behalf of, or with the knowledge and ratification of, a public employer.

Amended by R.1993 d.184, effective May 3, 1993.  
See: 25 N.J.R. 890(a), 25 N.J.R. 1882(a).  
Revised heading; added (b).

#### 12:100-4.2 Adoption by reference

(a) The standards contained in 29 CFR Part 1910, General Industry Standards, with amendments published in the Federal Register through May 27, 1992 with certain exemptions noted in (b) and (c) below are adopted and are incorporated herein by reference as occupational safety and health standards for the protection of public employees engaged in general operations and shall include:

1. Subpart C—General Safety and Health Provisions;
2. Subpart D—Walking—Working Surfaces;
3. Subpart E—Means of Egress;
4. Subpart F—Powered Platforms, Man Lifts, and Vehicle—Mounted Work Platforms;
5. Subpart G—Occupational Health and Environmental Control;

6. Subpart H—Hazardous Materials;
7. Subpart I—Personal Protective Equipment;
8. Subpart J—General Environmental Controls;
9. Subpart K—Medical and First Aid;
10. Subpart L—Fire Protection except that:
  - i. Paragraph 1910.155(a) and Section 1910.156 are not adopted.
11. Subpart M—Compressed Gas and Compressed Air Equipment;
12. Subpart N—Materials Handling and Storage;
13. Subpart O—Machinery and Machine Guarding;
14. Subpart P—Hand and Portable Powered Tools and Other Hand-Held Equipment;
15. Subpart Q—Welding, Cutting, and Brazing;
16. Subpart R—Special Industries;
17. Subpart S—Electrical;
18. Subpart T—Commercial Diving Operations; and
19. Subpart Z—Toxic and Hazardous Substances.

i. The standards contained in Subpart Z of 29 CFR Part 1910 are adopted except that the following health standards are not adopted:

- (1) 1910.1001. Asbestos; and
- (2) 1910.1200. Hazard communication.

ii. As incorporated herein by reference, 29 CFR Part 1910.1030 shall become operative October 4, 1993, with the following exceptions:

(1) The exposure control plan required by 29 CFR Part 1910.1030(c)2 shall be completed on or before December 3, 1993;

(2) The information and training required by 29 CFR Part 1910.1030(g)2 and the recordkeeping required by 29 CFR Part 1910.1030(h) shall become operative January 6, 1994; and

(3) 29 CFR Part 1910.1030(d)2, (d)3, (d)4, (e), (f) and (g) shall become operative February 6, 1994.

(b) Only standards relating to employee safety and health (that is, substantive rules) are adopted by any incorporation by reference as prescribed in (a) above.

(c) Standards listed in (a) above that conflict with or supersede any provisions of the State Uniform Construction Code Act, N.J.S.A. 52:27D-119 et seq. or the code promulgated thereunder, or the Uniform Fire Safety Act, N.J.S.A. 52:27D-192 et seq. or the code promulgated thereunder, shall not affect or limit the powers, duties, authorities and responsibilities of the Commissioner of Community Affairs or any enforcing agency thereunder in their areas of jurisdiction.

Amended by R.1986 d.285, effective July 21, 1986.

See: 18 N.J.R. 811(b), 18 N.J.R. 1479(b).

(a)18i added.

Amended by R.1987 d.241, effective June 15, 1987.

See: 19 N.J.R. 48(a), 19 N.J.R. 1098(a).

(a)9i added.

Amended by R.1987 d.425, effective October 19, 1987.

See: 19 N.J.R. 267(a), 19 N.J.R. 1909(a).

New (a)9 added; old 9-17 renumbered 10-18; old 18 repealed.

Amended by R.1987 d.439, effective November 2, 1987.

See: 19 N.J.R. 1533(a), 19 N.J.R. 2060(b).

Added text "in effect on December 19, 1986".

Amended by R.1988 d.86, effective February 16, 1988.

See: 19 N.J.R. 2239(a), 20 N.J.R. 403(a).

Changed date from December 19, 1986 to September 11, 1987 and added (a)19.

Amended by R.1988 d.260, effective June 6, 1988.

See: 20 N.J.R. 726(a), 20 N.J.R. 1232(a).

Changed date for publication in the Federal Register from September 11, 1987 to December 31, 1987.

Amended by R.1988 d.436, effective September 6, 1988.

See: 20 N.J.R. 1334(a), 20 N.J.R. 2300(b).

Date changed from December 31, 1987 to April 6, 1988.

Amended by R.1989 d.82, effective February 6, 1989.

See: 20 N.J.R. 2995(a), 21 N.J.R. 299(b).

Date changed from April 6, 1988 to September 29, 1988.

Amended by R.1989 d.358, effective July 3, 1989.

See: 21 N.J.R. 1089(a), 21 N.J.R. 1829(a).

Date changed from September 29, 1988 to January 19, 1989, to include OSHA amendments to 29 CFR 1910 which were published in the Federal Register on January 19, 1989, and which include permissible exposure limits for airborne toxic and hazardous substances.

Amended by R.1989 d.476, effective September 5, 1989.

See: 21 N.J.R. 1646(a), 21 N.J.R. 2800(a).

Changes made to conform to the Code of Federal Regulations.

Amended by R.1993 d.28, effective January 4, 1993.

See: 24 N.J.R. 73(a), 25 N.J.R. 180(b).

Revised (a)10i.

Amended by R.1993 d.171, effective April 19, 1993.

See: 25 N.J.R. 455(a), 25 N.J.R. 1771(b).

Revised (a).

Amended by R.1993 d.184, effective May 3, 1993.

See: 25 N.J.R. 890(a), 25 N.J.R. 1882(a).

Revised (a).

Amended by R.1993 d.308, effective June 21, 1993.

See: 25 N.J.R. 455(a), 25 N.J.R. 2688(b).

Amended by R.1993 d.323, effective July 6, 1993.

See: 24 N.J.R. 3607(b), 25 N.J.R. 2894(a).

Administrative correction.

See: 27 N.J.R. 1805(b).

#### Case Notes

Failure of employer to provide certain protective equipment may provide a basis for employee to leave work due to unhealthful conditions. *Sanchez v. Bd. of Review*, 206 N.J.Super. 617, 503 A.2d 381 (App.Div.1986).

#### 12:100-4.3 Compliance with referenced standards

(a) The standards contained in N.J.A.C. 12:100-4.2 shall apply according to the provisions thereof.

(b) Each employer shall protect his employees by complying with the standards prescribed in N.J.A.C. 12:100-4.2.

### SUBCHAPTER 5. CONSTRUCTION STANDARDS

#### 12:100-5.1 Scope of subchapter

This subchapter shall apply to construction safety and health standards adopted by reference.

**12:100-5.2 Adoption by reference**

(a) The standards contained in 29 CFR Part 1926, Construction Industry Standards with the amendments published in the Federal Register through October 31, 1989, are adopted as occupational safety and health standards for the protection of public employees engaged in construction operations and shall include:

1. Subpart C—General Safety and Health Provisions;
2. Subpart D—Occupational Health and Environmental Controls;
3. Subpart E—Personal Protective and Life Saving Equipment;
4. Subpart F—Fire Protection and Prevention;
5. Subpart G—Signs, Signals, and Barricades;
6. Subpart H—Materials Handling, Storage, Use, and Disposal;
7. Subpart I—Tools—Hand and Power;
8. Subpart J—Welding and Cutting;
9. Subpart K—Electrical;
10. Subpart L—Ladders and Scaffolding;
11. Subpart M—Floors and Wall Openings, and Stairways;
12. Subpart N—Cranes, Derricks, Hoists, Elevators, and Conveyors;
13. Subpart O—Motor Vehicles, Mechanized Equipment, and Marine Operations;
14. Subpart P—Excavations;
15. Subpart Q—Concrete, and Masonry Construction;
16. Subpart R—Steel Erection;
17. Subpart S—Tunnels and Shafts, Caissons, Cofferdams, and Compressed Air;
18. Subpart T—Demolition;
19. Subpart U—Blasting and Use of Explosives;
20. Subpart V—Power and Transmission and Distribution;
21. Subpart W—Rollover Protective Structures; Overhead Protection; and
22. Appendix—General Industry Standards Identified as Applicable to Construction.

(b) Only standards relating to employee safety and health (that is, substantive rules) are adopted by any incorporation by reference as prescribed in (a) above.

(c) Standards listed in (a) above that conflict with or supersede any provisions of the State Uniform Construction Code Act, N.J.S.A. 52:27D-119 et seq. or the code promul-

gated thereunder, or the Uniform Fire Safety Act, N.J.S.A. 52:27D-192 et seq. or the code promulgated thereunder, shall not affect or limit the powers, duties, authorities and responsibilities of the Commissioner of Community Affairs or any enforcing agency thereunder in their areas of jurisdiction.

Amended by R.1987 d.439, effective November 2, 1987.

See: 19 N.J.R. 1533(a), 19 N.J.R. 2060(b).

Added text "in effect on July 21, 1986".

Amended by R.1988 d.260, effective June 6, 1988.

See: 20 N.J.R. 726(a), 20 N.J.R. 1232(a).

Substantially amended (a).

Amended by R.1989 d.476, effective September 5, 1989.

See: 21 N.J.R. 1646(a), 21 N.J.R. 2800(a).

Changes made to conform to the Code of Federal Regulations.

Amended by R.1990 d.216, effective April 16, 1990.

See: 22 N.J.R. 607(a), 22 N.J.R. 1270(b).

Section updated to conform to the Code of Federal Regulations.

**Case Notes**

OSHA standards were relevant in suit of injured business invitee to illustrate industry standards. *Smith v. Kris-Bal Realty, Inc.*, 242 N.J.Super. 346, 576 A.2d 934 (A.D.1990).

OSHA standards adopted in New Jersey could be applicable to scaffold collapse incident or recognized as prevailing safety standards in community. *Sanna v. National Sponge Co.*, 209 N.J.Super. 60, 506 A.2d 1258 (App.Div.1986).

**12:100-5.3 Compliance with referenced standards**

(a) The standards contained in N.J.A.C. 12:100-5.2 shall apply according to the provisions thereof.

(b) Each employer shall protect his employees by complying with the standards prescribed in N.J.A.C. 12:100-5.2.

**SUBCHAPTER 6. AGRICULTURAL STANDARDS****12:100-6.1 Scope of subchapter**

This subchapter will apply to agricultural safety and health standards adopted by reference.

**12:100-6.2 Adoption by reference**

(a) The standards contained in 29 CFR Part 1928, Agriculture with the amendments published in the Federal Register through July 31, 1987, are adopted as occupational safety and health standards and shall include:

1. Subpart B—Applicability of Standards;
2. Subpart C—Roll-Over Protective Structures;
3. Subpart D—Safety for Agricultural Equipment; and
4. Subpart I—Toxic and Hazardous Substances.

(b) Only standards relating to employee safety and health (that is, substantive rules) are adopted by an incorporation by reference as prescribed in (a) above.

Amended by R.1987 d.439, effective November 2, 1987.

See: 19 N.J.R. 1533(a), 19 N.J.R. 2060(b).

Added text "in effect on July 21, 1986".

Amended by R.1988 d.260, effective June 6, 1988.

See: 20 N.J.R. 726(a), 20 N.J.R. 1232(a).

Changed date from July 21, 1986 to July 31, 1987 and added amendments published in the Federal Register.

### 12:100-6.3 Compliance with referenced standards

(a) The standards contained in N.J.A.C. 12:100-6.2 shall apply according to the provisions thereof.

(b) Each employer shall protect his employees by complying with the standards prescribed in N.J.A.C. 12:100-6.2.

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## SUBCHAPTER 7. (RESERVED)

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## SUBCHAPTER 8. STANDARDS FOR INDOOR FIRING RANGES FOR PUBLIC EMPLOYEES

### 12:100-8.1 Scope

(a) This subchapter shall apply to the following:

1. The design considerations, work practices, and ammunition used at existing and new indoor firing ranges operated by public employers;
2. Public employees assigned to work at an indoor firing range; and
3. Public employers who operate indoor firing ranges and who are responsible for complying with the provisions of this standard.

### 12:100-8.2 Definitions

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

"Bounce back" means the occasion when hard zinc bullets bounce off the surface of the bullet trap.

"Bullet trap" means the area of the firing range furthest from the shooting area which is equipped with plates to capture the expended bullets after firing.

"HEPA" means a high efficiency particulate absolute filter which is 99.97 percent efficient for 0.3 microns.

"Indoor firing range" means the room inside a building which contains the shooting booths and is used for the shooting of firearms.

Amended by R.1994 d.492, effective September 19, 1994.

See: 26 N.J.R. 2776(a), 26 N.J.R. 3872(b).

### 12:100-8.3 Lead standard

The Lead Standard, Section 1910.1025 of 29 CFR Part 1910, adopted by reference at N.J.A.C. 12:100-4.2(a)18, shall be applicable at indoor firing ranges.

### 12:100-8.4 Ammunition

(a) The ammunition used in indoor firing ranges during practice sessions shall be zinc bullets or nylon jacketed or copper jacketed bullets. Service ammunition routinely used by the public employer may be used for qualification sessions.

(b) When selecting the type of ammunition to be used to comply with (a) above, consideration shall be given to a potential problem of "bounce back" of the much harder zinc bullet from the bullet trap in some ranges. Consideration shall be given to the potential eye hazard to shooters which may make the use of the zinc bullets unsafe unless changes are made in the bullet trap.

### 12:100-8.5 Ventilation system

(a) The minimum air velocity shall be 50 feet per minute at the firing line. An optimum air velocity should be 75 feet per minute at the firing line.

(b) Filtered and conditioned air shall be introduced behind the firing line to guarantee an evenly distributed flow of air through the shooting positions. Supplied air inlets should be placed approximately 15 feet behind the shooter's position.

(c) The entire range facility shall be maintained at a slightly negative pressure with respect to adjacent areas to prevent the escape of contaminants. Exhaust air shall exceed supplied air by at least 10 percent. For maximum efficiency, exhaust ducts should be located behind and at the apex of the bullet trap. An alternative location is to place the exhaust ducts on the side walls slightly in front of the apex of the bullet trap.

(d) A minimum down range conveying velocity of 35 feet per minute shall be maintained. When the 75 feet per minute rate is used, a minimum of 25 percent of the air should be exhausted 15 to 20 feet down range of shooting position and the remaining 75 percent at the bullet trap. When the 50 feet per minute rate is used, 100 percent of the air should be exhausted down range at the bullet trap.

(e) Each range shall have its own ventilation system to prevent the circulation of contaminated air to other areas of the building.

1. The work area shall be inspected for removal of nonessential items and to ensure that components are operationally intact and that all employees have been safely positioned or removed; and

2. Lockout and tagout devices shall be removed from each energy isolating device by the employee who applied the device, with the exception that devices may be removed under the direction of an authorized employee under the following conditions, and only where the authorized employees follow specific procedures which have been developed for those conditions:

i. When the employee who applied a personal lockout/tagout device is not available to remove the device; and

ii. Unique operating conditions involving complex systems, where the employer can demonstrate that it is not feasible to do otherwise.

#### 12:100-11.12 Additional requirements

(a) In situations where the energy isolating device(s) is locked and tagged, and there is a need to test or position the machine or equipment, the following sequence of actions shall be implemented:

1. Clear the machine or equipment of tools and materials and clear employees from the machine or equipment area in accordance with N.J.A.C. 12:100-11.11(a)1;

2. Clear the control of locks and tags with appropriate procedures in accordance with N.J.A.C. 12:100-11.11(a)2;

3. Energize and proceed with testing or positioning; and

4. De-energize all systems and reapply energy control measures in accordance with (d) below to continue the work.

(b) Whenever outside servicing personnel are to be engaged in activities covered by the scope and application of this subchapter, the plant or facility employer shall inform them of the lockout/tagout procedures used by the facility.

1. The plant or facility employer shall assure that the lockout/tagout procedures used by outside servicing personnel are compatible with existing in-plant procedures.

(c) When lockout and tagout devices are used by a crew, craft, department, or other group, the affected employees shall be afforded a level of protection equivalent to that provided by personal lockout and tagout devices.

1. Group lockout and tagout devices shall be used in accordance with the procedures required by N.J.A.C. 12:100-11.11(a)1, including, but not necessarily limited to, the following specific requirements:

i. Primary responsibility shall be vested in an authorized employee for a set number of employees working

under the protection of a particular group lockout and tagout device;

ii. Provision for the authorized employee to ascertain the exposure status of individual group members with regard to the lockout and tagout of the equipment or process; and

iii. When more than one crew, craft, department, etc., is involved, the responsibility of the overall job-associated lockout/tagout control shall be assigned to an authorized employee designated to coordinate affected work forces and ensure continuity of protection;

(d) Specific procedures shall be implemented during shift or personnel changes to ensure the continuity of lockout and tagout protection in accordance with N.J.A.C. 12:100-11.11(a)1. These procedures shall be developed as follows:

1. For the orderly transfer of lockout and tagout devices between off-going and oncoming employees which will eliminate exposure to hazards from the unexpected energization, start-up, or the release of stored energy of the equipment or process; and

2. To ensure that the equipment or process is being maintained in a safe condition so as to permit continued work by employees following the transfer of control over lockout and tagout devices.

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## SUBCHAPTER 12. ASBESTOS

### 12:100-12.1 Scope of subchapter

This subchapter shall apply to all employees and employers as defined in N.J.A.C. 12:100-12.2 who may be directly exposed to asbestos as that term is defined in N.J.A.C. 12:100-12.2.

### 12:100-12.2 Definitions

(a) The following words, terms and abbreviations when used in this subchapter shall have the following meanings unless the context clearly indicates otherwise.

“Accessible” means asbestos-containing material that can be readily touched by hand or a reasonable extension of the hand, or hit by a thrown object, or touched by climbing on a chair.

“Action level” means direct exposure, without regard to the use of respirators, to an airborne concentration of asbestos of 0.05 f/cc averaged over a full-shift.

“ANSI” means the American National Standards Institute.

“Asbestos” means a general term used to describe a group of naturally occurring hydrated mineral silicates. The asbestiform varieties include chrysotile (serpentine); crocidolite (riebeckite); amosite (cummingtonite-grunerite); anthophyllite; tremolite; and actinolite.

“Asbestos-containing material” means any material which contains more than one percent asbestos by weight.

“Asbestos hazards abatement job” means the following:

1. “Large asbestos hazard abatement job” means the removal, enclosure or encapsulation within one year of 160 square feet or more of asbestos-containing material used on an equipment, wall, or ceiling area; or involves the removal or encapsulation, using a liquid material applied by a pressurized spray, within one year of 260 linear feet or more of asbestos-containing material on covered piping.

2. “Minor asbestos hazard abatement job” means corrective action using recommended work practices to minimize the likelihood of fiber release from small damaged areas of asbestos ceilings, pipe and boiler insulation which involves the removal, repair, encapsulation or enclosure of 25 square feet or less of asbestos-containing material used on an equipment, wall or ceiling area; or involves the removal or encapsulation, using a liquid material applied by a pressurized spray, of 10 linear feet or less of asbestos-containing material on covered piping as delineated in N.J.A.C. 5:23-8.4. The repair, enclosure and encapsulation by methods other than pressurized spray of any amount of asbestos-containing material used to cover piping, shall also be a minor asbestos hazard abatement job.

3. “Small asbestos hazard abatement job” means the removal, enclosure, or encapsulation within one year of more than 25 and less than 160 square feet of asbestos-containing material used on an equipment, wall or ceiling area; or involves the removal or encapsulation, using a liquid material applied by a pressurized spray, within one year, of more than 10 and less than 260 linear feet of asbestos-containing material on covered piping.

“Asbestos safety technician” means a person certified by the New Jersey Department of Community Affairs, hired by the asbestos safety control monitor who continuously monitors and inspects the asbestos abatement work.

“CFR” means Code of Federal Regulations in effect on the date this chapter was last amended.

“Decontamination unit” means a serial arrangement of rooms or spaces for the purpose of separating the work site from the building environment upon entering the work site and for the cleaning of employees’ and employers’ equipment, and contained waste prior to returning to the clean environment.

“DCA” means the New Jersey Department of Community Affairs.

“DEP” means the New Jersey Department of Environmental Protection.

“Direct exposure” means potential exposure to asbestos fibers to employees who perform large, small and minor abatement work, initial cleaning in an area containing damaged friable asbestos, and routine maintenance which may disturb asbestos or cause contact with damaged asbestos containing materials. Direct exposure also means potential exposure to asbestos fibers to employees who contact, work with, use, disturb, repack and handle asbestos or asbestos-containing materials.

“DOH” means the New Jersey Department of Health.

“Employer” means public employer and shall include any person acting directly on behalf of, or with the knowledge and ratification of:

1. The State, or any department, division, bureau, board, council, agency or authority of the State, except any bistate agency; or

2. Any county, municipality, or any department, division, bureau, board, council, agency or authority of any county or municipality, or of any school district or special purposes district created pursuant to law, according to N.J.A.C. 12:100-2.1.

“Employee” means any public employee, any person holding a position by appointment or employment in the service of an “employer” as that term is used in the Act and shall include any individual whose work has ceased as a consequence of, or in connection with, any administrative or judicial action instituted under the Act; provided, however, that elected officials, members of boards and commissions and managerial executives as defined in the New Jersey Employer-Employee Relations Act, N.J.S.A. 34:13A-1 et seq. shall be excluded from the coverage of the Act, according to N.J.A.C. 12:100-2.1.

“Encapsulation” means treatment of asbestos-containing materials, generally ceilings, using a liquid to bond or seal the surface to minimize the potential for fiber release.

“Enclosure” means an impermeable barrier made of wood, metal, or other material and placed around asbestos-containing material.

“EPA” means the U.S. Environmental Protection Agency.

“f/cc” means fibers per cubic centimeter of air.

“Fibers” means fibers longer than five microns (um) with a length-to-width aspect ratio of 3:1 or greater.

“Friable asbestos material” means any material containing more than one percent asbestos by weight which when dry, may be crumbled, pulverized, or reduced to powder by hand pressure.

“HEPA” means a high efficiency particulate absolute filter which is 99.97 percent efficient for 0.3 microns.

“High efficiency filter respirator” means a filter approved by NIOSH for dust, fumes and mists having a time-weighted average, that is, permissible exposure limit, less than 0.05 milligrams per cubic meter.

“Negative pressure” means air pressure lower than surrounding areas, generally caused by exhausting air from a sealed space or work area.

“NIOSH” means the National Institute for Occupational Safety and Health of the U.S. Department of Health and Human Services.

“OSHA” means the Occupational Safety and Health Administration of the U.S. Department of Labor.

“PCM” means phase contrast microscopy, commonly 450 magnification.

“PLM” means polarized light microscopy, commonly 100 magnification.

“Primarily seal/critical barrier” means two layers of six mil polyethylene sheeting that completely seals off the work area to prevent the distribution of fibers to the surrounding area, such as the opening between the top of a wall and the underside of ceiling construction, electrical outlets, non-removable lights, heating, ventilation and air conditioning systems, window, doorways, entranceways, ducts, grilles, grates, diffusers, wall clocks, speaker grilles, floor drains, sink drains, etc.

“Removal” means taking asbestos materials out of a building and disposing of such materials.

“Repair” means corrective action using recommended work practice to minimize the likelihood of fiber release from small damaged areas of asbestos ceilings, and pipe and boiler insulation. Repair may include but is not limited to: enclosure of pipe and boiler insulation, spot removal and replacement with non-asbestos material, and spot encapsulation of ceiling materials with minor damage.

“TWA” means time-weighted average concentration for an eight-hour work day.

“um” means microns, or micrometers.

“Wet cleaning” means the process of eliminating asbestos contamination from building surfaces and objects by using cloths, mops, or other cleaning utensils which have been dampened with amended water afterwards thoroughly de-

contaminated or disposed of as asbestos contaminated waste.

“Work area” means the area where asbestos related work or removal operations are performed which is defined and isolated to prevent the spread of asbestos dust, fiber or debris, and entry by unauthorized personnel.

### 12:100-12.3 Permissible exposure levels

(a) The eight-hour, time-weighted average airborne concentrations of asbestos fibers to which any employee may be exposed directly shall not exceed 0.1 fibers, longer than five micrometers, per cubic centimeter of air (0.1 f/cc) as determined by N.J.A.C. 12:100-12.10.

(b) No employee shall be exposed directly at any time to airborne concentrations of asbestos fibers in excess of 0.5 fibers, longer than five micrometers per cubic centimeter of air (0.5 f/cc) based on a 30 minute sampling period as determined by N.J.A.C. 12:100-12.10.

(c) When an employee is directly exposed to asbestos, the control methods of N.J.A.C. 12:100-12.4, through N.J.A.C. 12:100-12 shall be utilized.

### 12:100-12.4 Engineering methods of compliance

(a) Engineering controls, such as, but not limited to, isolation, enclosure, local exhaust ventilation and dust collection, shall be used to meet compliance with the permissible exposure limits.

(b) Local exhaust systems and dust collection systems utilizing high efficiency particulate absolute filters shall be designed, constructed, installed, and maintained in accordance with ANSI Z9.2-1979, Design and Operation of Local Exhaust Systems.

(c) All hand-operated and power-operated tools which may produce or release airborne fibers, such as, but not limited to, saws, scorers, abrasive wheels, and drills, shall be provided with local exhaust systems.

(d) Wherever possible, non-asbestos containing materials shall be substituted for asbestos containing materials, such as, but limited to, non-asbestos cements, plasters, brake and clutch pads and linings, valve packing, lagging, rope, welding shields, gaskets, fireproof clothing and gloves.

### 12:100-12.5 General work practices for compliance

(a) Asbestos shall be handled, mixed, applied, removed, cut, scored, or otherwise worked in a wet state sufficient to prevent the emission of airborne fibers.

(b) All external surfaces in any place of employment shall be maintained free of asbestos fibers using wet cleaning methods or a HEPA vacuum or both. Under no circumstances shall any cleaning be done by dry sweeping, dusting,

blowing off dust with compressed air or vacuuming with a non HEPA-equipped machine.

(c) In buildings where damaged, friable asbestos is being initially cleaned, the employer shall ensure that the following procedures are taken:

1. All carpets through the building shall be vacuumed with a High Efficiency Particulate Air (HEPA)-filtered vacuum cleaner and all non-carpeted floors shall be cleaned with wet mops. Vacuum cleaner bags shall be sprayed with water before removal and discarded pursuant to N.J.A.C. 12:100-12.12. Vacuum filters and mop-heads shall also be discarded pursuant to N.J.A.C. 12:100-12.12.

2. In areas where the vacuum cleaner filter is changed, the area shall be isolated and personal protective equipment shall be worn by employees performing the task.

3. All curtains and books in areas where there is damaged, friable asbestos shall be vacuumed with a HEPA-vacuum. Vacuum bags and filters shall be discarded pursuant to N.J.A.C. 12:100-12.12. All shelves and other horizontal surfaces in areas where there is damaged, friable asbestos shall be wiped with damp cloths. A mist spray bottle shall be used to keep cloths damp. Cloths shall be discarded in sealed plastic bags.

(d) In areas where direct exposure to asbestos may result, the employer shall comply with the following practices.

1. The storage or consumption of food, beverages, smoking materials, tobacco products or other products for chewing shall be prohibited.

2. Where employees wear protective clothing and equipment, centralized clean change rooms shall be provided in accordance with 29 CFR 1910.141(e) for the number of such employees required to change clothes.

3. Where employees are required to wash, washing facilities shall be provided in accordance with 29 CFR 1910.141(d)(1) and (2)(ii) through (vii).

4. Where employees are required to shower, shower facilities shall be provided in accordance with 29 CFR 1910.141(d)(3).

5. If a lunchroom is provided it shall be located in an area complying with 29 CFR 1910.141(g)(2).

(e) New materials containing asbestos cement, mortar, coating, grout, plaster, or similar material containing asbestos shall not be removed from bags, cartons, or other containers in which they are shipped, without being either wetted, or enclosed, or ventilated so as to effectively prevent the release of airborne asbestos fibers.

(f) Areas of direct exposure to asbestos shall be isolated from the surrounding environment to prevent contamination of these areas and exposure of unprotected employees. The conditions present in each area shall be evaluated to develop a proper enclosure. Methods may include, but are not limited to, sealing with six mil thick polyethylene sheeting, establishing negative pressure in the area, establishing continuous local exhaust ventilation so that air movement is always from ordinary work areas towards the asbestos operation, establishing boundaries and barricades, or performing work outside of normal school or work hours.

1. Entry shall be restricted to employees whose duties require them to be in the areas and who have been specifically assigned by the employer.

2. Any material, equipment, tools or other item to be taken or removed from such areas shall be first decontaminated by HEPA vacuuming or wet wiping.

3. Prior to commencing direct work with asbestos such areas shall be posted in accordance with N.J.A.C. 12:100-12.11.

#### **12:100-12.6 Specific work practices for compliance: brakes; clutch plates and furnaces**

(a) Employers shall ensure that employees performing work on brakes and clutch plates containing asbestos are trained in accordance with N.J.A.C. 12:100-12.13.

1. All work on brakes and clutch plates shall be done using an enclosed system which includes a HEPA vacuum attached to a box or cylinder which fits over the brake or clutch assembly.

2. The enclosed system shall have a two hand rubber glove system to assure isolation and allow drum removal inside the enclosure, and a negative pressure system that reduces exposure during filter change and attachments for clutch work.

3. Aerosol spray cleaners and brake assembly washing systems shall not be used.

4. Shop vacuums shall not be used for cleaning of asbestos dust.

5. Compressed air shall not be used outside an enclosed system for removing asbestos dust from brake or clutch assemblies.

(b) The employer shall determine whether interior cleaning of a boiler, incinerator or other furnace involves direct exposure to asbestos-containing materials.

1. Where cleaning does involve direct exposure to asbestos, all requirements of this subchapter shall be followed.

**12:100-12.7 Asbestos abatement work**

(a) The employer shall ensure that all asbestos abatement work, including minor asbestos hazard abatement jobs, small asbestos hazard abatement jobs, large asbestos hazard abatement jobs, encapsulation and enclosure, performed in areas normally occupied by public employees, be performed according to N.J.A.C. 5:23-8.4, 8.10, 8.11, 8.12, 8.13 and 8.14 of the Asbestos Hazard Abatement Subcode of the Uniform Construction Code.

(b) The employer shall obtain a license and the employee shall obtain a permit in accordance with N.J.A.C. 12:120, Asbestos Licenses and Permits, when more than 10 linear feet or more than 25 square feet of asbestos is stripped or removed.

**12:100-12.8 Respiratory protective equipment**

(a) Respiratory protection shall be worn by any employee who is directly exposed to asbestos without regard to airborne asbestos levels and without regard to the implementation of all engineering and work practice controls, except as provided in 1 below.

1. The Department of Health may grant exemptions to the respirator requirements of this section. To apply for an exemption, an employer shall provide representative personal monitoring data complying with N.J.A.C. 12:100-12.10 or descriptions of all engineering and work practice controls in use or both.

(b) Respirators shall be selected from among particular makes and models approved by the National Institute for Occupational Safety and Health under the provisions of 30 CFR Part 11 from one of the following five types:

1. Self-contained breathing apparatus, pressure-demand open circuit, with full facepiece;
2. Self-contained breathing apparatus, positive-pressure closed circuit, with full facepiece;
3. Pressure demand supplied air respirator, with half-mask or full facepiece, with or without escape provisions;
4. Type "C" continuous flow supplied air respirator, with any tight-fitting facepiece, with or without escape provisions; or
5. Powered air purifying respirator with a high efficiency particulate filter and a tight-fitting facepiece.

(c) Employees shall not be assigned to use a respirator unless it has been determined by a physician that the employees are physically able to perform the work and use the equipment. This evaluation shall be provided at no cost to the employee before first assignment to wear a respirator or periodically while use continues. The physician making the determination shall follow the guidance in ANSI Z88.6-1984, Respiratory Protection-Respirator Use-Physical Qualifications for Personnel.

(d) If based on the medical determination, an employee is unable to wear any appropriate respirator, such employee may be rotated to another job or given the opportunity to transfer to a different position whose duties the employee is able to perform with the same employer, in the same geographical area and with the same seniority, status, and rate of pay he had just prior to such transfer.

(e) Employers utilizing respirators for protection against asbestos shall establish a respiratory protection program in accordance with 29 CFR 1910.134.

(f) Removal of respirators shall take place only after HEPA vacuuming of all garments, shoes and personal protective equipment. The respirator exterior shall be vacuumed, and washed or wet wiped before removal. The instructions and recommendations of the respirator manufacturer shall be followed concerning decontamination, removal, and filter replacement.

**12:100-12.9 Personal protective clothing**

(a) In large, small and minor asbestos abatement work and in work involving direct exposure to asbestos, the employer shall ensure that each employee complies with the procedures of this section.

(b) Where showering facilities are available:

1. Employees shall be required to shower after asbestos work.

2. Employees shall wear any type of disposable or non-disposable clothing during asbestos work. Employees shall HEPA vacuum and remove all personal protective equipment and clothing before exiting the asbestos work area and either discard the disposable clothing as asbestos-contaminated waste or place the non-disposable clothing in plastic bags for laundering or decontamination by the employer.

3. Employees shall wear disposable shoe coverings during asbestos work. Employees shall HEPA vacuum and remove shoe coverings and HEPA vacuum shoes before exiting the asbestos work area. Employees shall discard coverings as asbestos-contaminated waste. Shoes may be retained in asbestos area for re-use or removed from the area after being HEPA vacuumed.

4. Employees shall shower after decontamination and removal of all personal protective equipment and clothing except the respirator. Employees shall not remove the respirator until they are in the shower and have thoroughly wetted their hair and body and washed the exterior of the respirator. Employees shall also wash other non-disposable personal protective equipment in the shower.

(c) Where showering facilities are not available:

1. Employees shall wear disposable clothing which is approved by the Department of Health and shown to be impenetrable to asbestos relative to other available fab-

rics. Employees shall wear disposable clothing either over non-disposable clothing or by itself. Disposable clothing shall cover the whole body and extremities and include gloves, head coverings, and coveralls. Coveralls shall be elastic, taped or otherwise rendered dust-tight at ankles, wrists and neck. Employers shall provide a variety of sizes adequate for employees.

2. Employees shall HEPA vacuum and remove all personal protective equipment and clothing before exiting the asbestos work area. Employees shall discard disposable clothing as asbestos-contaminated waste.

3. Employees shall wear and decontaminate shoe coverings and shoes in accordance with (b)3 above.

4. After exiting, employees shall vacuum, then wash or wet wipe the exterior of the respirator. Employees shall then remove the respirator and wash or wet wipe hands, face and neck.

(d) Personal protective clothing shall be breathable or heat-dissipating where employees work in a high temperature area.

(e) Personal protective clothing shall be fire-retardant where employees are exposed to open flames.

(f) Other protective equipment for eyes, face, head and extremities shall be provided when needed in accordance with 29 CFR 1910.132 and 1210.133.

(g) The laundering of asbestos contaminated clothing and decontamination of personal protective equipment shall be considered direct exposure to asbestos. The laundering of asbestos contaminated clothing shall be done so as to prevent the release of airborne asbestos fibers. Any employer who gives asbestos-contaminated clothing to another person for laundering shall inform such person of the requirement to effectively prevent the release of airborne asbestos fibers. Contaminated clothing shall be transported in sealed impermeable bags, or other closed, impermeable containers, and labeled in accordance with N.J.A.C. 12:100-12.11.

(h) During minor abatement work, maintenance work and other work where no decontamination area is immediately available and where employees must travel through non-asbestos areas between direct exposure to asbestos, the following modifications to (a) through (c) above are permitted:

1. Personal protective equipment shoes and clothing may be worn during such travel provided they are thoroughly HEPA vacuumed first;

2. Respirators shall be HEPA vacuumed, wet wiped or washed, filters capped and placed in a plastic bag before such travel; and

3. Shoe protection and decontamination shall be done in accordance with (b)3 above.

#### 12:100-12.10 Monitoring practices

(a) All sampling and analysis of airborne concentrations of asbestos fibers required by this section shall be made using NIOSH method 7400.

(b) An employee shall be considered exposed if the airborne concentration of asbestos fibers exceeds the permissible exposure limits even though the employee is using a respirator.

(c) The purpose of the required monitoring is to evaluate the effectiveness of engineering controls and work practices in reducing employee exposure below the limits of N.J.A.C. 12:100-12.3 and to trigger corrective action or modifications when necessary.

1. All samples required by this section shall be submitted to a laboratory participating successfully in the National Institute for Occupational Safety and Health Proficiency Analytical Test Program for asbestos. Such laboratory shall also be a State Certified Asbestos Testing Laboratory, when such a certification is implemented.

2. The laboratory shall provide the employer with the personal monitoring results for large asbestos abatement jobs within 24 hours of the collection of air samples.

3. The employer shall evaluate the monitoring results and implement the necessary corrective action or modifications within 48 hours of the receipt of personal air monitoring results.

(d) Personal monitoring consisting of a monitoring device on the employee's person, is required for the following situations:

1. During large asbestos hazard abatement jobs such monitoring shall be performed by the on-site Asbestos Safety Technician.

2. During direct exposure to asbestos arising from repetitive tasks where monitoring can appropriately evaluate the effectiveness of engineering controls and work practices in reducing employee exposure below the limits of N.J.A.C. 12:100-12.3 and to trigger corrective action or modifications when necessary. Repetitive tasks are ongoing routine tasks where monitoring results are representative of employee exposure. An example of such repetitive task is the performance of work on brakes and clutches containing asbestos.

(e) Monitoring is not required during one time non-repetitive or unique tasks where monitoring will not appropriately evaluate the effectiveness of engineering controls and work practices.

(f) Monitoring shall include full shift personal samples representative of the employee's regular exposure to asbestos and short term personal samples representative of the employee's peak exposures to asbestos.

(g) At least one employee in each job classification or with distinct job duties shall be monitored.

(h) Within six months of the effective date of this subchapter, employers shall monitor those employees where direct exposure to asbestos arises from repetitive tasks as described in (d)2. above.

1. Employees who perform large asbestos hazard abatement jobs shall be monitored as soon as actual removal, isolation or encapsulation work begins.

2. Monitoring for the initial determination may be limited to a representative sample of the exposed employees who the employer reasonably believes are exposed to the greatest airborne concentrations of asbestos.

3. Measurements of airborne asbestos made in the preceding 12 months may be used to satisfy the requirement to monitor under (h) above if the sampling and analytical methods used meet the requirements of this section.

4. Where an initial determination and initial monitoring conducted under (h) and (h)1. above reveals the possibility of any employee exposure at or above the action level, the employer shall conduct monitoring which is representative of the exposure of each employee who is exposed to airborne asbestos in the workplace.

i. Measurements of airborne asbestos made in the preceding 12 months may be used to satisfy this requirement if the sampling and analytical methods used meet the requirements of this section.

5. Where an initial determination and initial monitoring conducted under (h) and (h)1. above reveals that no employee is exposed to airborne concentrations of asbestos at or above the action level, the employer shall make a written record of such determination. The record shall include the date of determination, location within the worksite, and the name and social security number of each employee monitored.

6. If the initial monitoring reveals employee exposure to be below the action level, the measurements need not be repeated except as provided in (i) below.

7. If the initial determination or subsequent monitoring reveals employee exposure to be at or above the action level but below the permissible exposure limit, the employer shall repeat monitoring in accordance with this section at least every six months. The employer shall continue monitoring at the required frequency until at least two consecutive measurements, taken at least seven days apart, are below the action level at which time the employer may discontinue monitoring for that employee except as otherwise provided in (i) below.

8. If the initial monitoring reveals that employee exposure is above the permissible exposure limit the employer shall repeat monitoring quarterly. The employer shall continue monitoring at the required frequency until at least two consecutive measurements, taken at least seven days apart, are below the permissible exposure levels but at or above the action level at which time the employer shall repeat monitoring for that employee at the frequency specified in (h)7. above, except as otherwise provided in (i) below.

(i) Whenever there has been a production, process, control or personnel change which may result in new or additional exposure to asbestos or whenever the employer has any other reason to suspect a change which may result in new or additional exposures to asbestos, the monitoring shall be repeated.

1. Employee asbestos exposures resulting from large asbestos hazard abatement jobs can be highly variable with changes in type of asbestos, percentage of asbestos in the material, binding material, amount of material abated, type and number of employees present and room size. Accordingly, repeated monitoring shall be done whenever there is a significant change in any one of these factors.

(j) Within five working days after the receipt of monitoring results, the employer shall notify each employee in writing of the results which represent the exposure of that particular employee.

1. Whenever the results indicate that the representative employee exposure, without regard to respirators, exceeds the permissible exposure limit, the employer shall include in the written notice a statement that the permissible exposure limit was exceeded and a description of the corrective action taken or to be taken to reduce exposure to or below the permissible exposure limit.

#### 12:100-12.11 Caution signs and labels

(a) Caution signs shall be provided and displayed at each area where employees are directly exposed to asbestos. Signs shall be posted at such a distance from a location that an employee may read the signs and take necessary protective steps before entering the area marked by the signs. Signs shall be posted at all approaches to such areas.

(b) Warning signs shall conform to the 20 inch by 14 inch vertical format signs specified in 29 CFR 1910.145(d)(4). The sign shall display the following legend in the lower panel, with letter sizes and styles of a visibility at least equal to that specified in Table 12.11.

Table 12.11  
Caution Signs and Labels

Legend	Notation
Asbestos	1" Sans Serif, Gothic or Block.
Dust Hazard	3/4" Sans Serif, Gothic or Block.
Avoid Breathing Dust	1/4" Gothic.
Wear Assigned Protective Equipment	1/4" Gothic.
Do Not Remain In Area Unless Your Work Requires It.	1/4" Gothic.
Breathing Asbestos Dust Is Hazardous To Your Health.	14 Point Gothic.

(c) Spacing between lines shall be at least equal to the height of the upper of any two lines.

(d) Caution labels shall be affixed to all raw materials, mixtures, scrap, waste, debris, and other products containing asbestos fibers, or to their containers, in accordance with N.J.A.C. 12:100-12.12.

(e) The caution labels of (d) above shall be printed in letters of sufficient size and contrast to be readily visible and legible. The label shall state:

**CAUTION**  
Contains Asbestos Fibers  
Avoid Creating Dust  
Breathing Asbestos Dust Causes  
Serious Bodily Harm

#### **12:100-12.12 Storage and waste disposal**

(a) All asbestos-containing materials which are not in use, other than those in place on ceilings, walls, pipes and boilers, shall be stored in such a way so as to prevent the release of airborne fibers. Storage may include, but is not limited to, impermeable containers of air-tight drums.

(b) Disposal of asbestos waste shall be conducted in accordance with N.J.A.C. 7:26, Solid Waste Regulations.

#### **12:100-12.13 Employee information and training**

(a) Each employer in a workplace in which there is a potential exposure to airborne asbestos at any level shall inform employees who are directly exposed and contractors whose employees may be directly exposed of the presence and location of asbestos-containing materials in the workplace and the health impact of the exposure to asbestos.

(b) The employer shall institute a training program for and ensure the participation of all employees who have direct exposure to asbestos. Training shall be specifically designed for asbestos workers, maintenance and custodial workers, mechanics or other job titles which may have direct exposure to asbestos.

(c) All training programs shall be conducted by a firm which is certified by the New Jersey Department of Health pursuant to N.J.A.C. 12:120-6 and 8:60-6. In order to become certified to conduct public employee training, such as maintenance and custodial training, the firm shall first be certified to conduct asbestos worker training in accordance with Subchapters 2 and 6 of N.J.A.C. 12:120 and 8:60, Asbestos Licenses and Permits. An application to conduct specialized training shall then be submitted to the Department of Health for approval. The training courses shall meet all the requirements of N.J.A.C. 12:120-6 and 8:60-6.

(d) The employer shall provide initial training within 180 days from the effective date of this subchapter.

(e) The training shall be repeated at least annually.

(f) Within 60 days of the date of employment, the employer shall provide training to any new employee who will be directly exposed to asbestos.

(g) The training shall include, but not be limited to, information on the following:

1. Health effects of asbestos exposure;
2. Limitations of medical screening;
3. Information on how to evaluate one's own historical and current exposure levels;
4. Synergistic effects between cigarette smoking and asbestos exposure, including the importance of smoking cessation;
5. Scope of State and Federal regulations;
6. Respiratory protection, including types of respirators, fit testing and care of respirators;
7. Other personal protection equipment including clothing; and
8. Specific work practices and use of all equipment pertinent to the job.

(h) The employer shall make available to all employees who smoke a list of resources which provide information on smoking cessation programs. The list of resources shall be made available to the employer by the Commissioner of Health.

#### **12:100-12.14 Medical monitoring**

(a) Medical monitoring shall be required for all employees whose exposure to asbestos is equal to or greater than 0.2 fibers per cubic centimeter of air averaged over an eight hour day, two to three days per week, on a regular basis. This monitoring shall begin within one year of the determination of the exposure.

(b) Within one year of the effective date of this subchapter, medical monitoring shall be required for all employees with significant historical direct exposure to asbestos. Employers shall consult with the Department of Health and employee representatives in identifying current employees with significant historical direct exposure which is defined as a cumulative exposure of at least 10 fibers/cubic centimeter years of exposure calculated by multiplying average TWA exposure for a year by duration in years.

(c) Medical monitoring shall include: a comprehensive work history, physical examination with special emphasis on the lungs, a posterior-anterior chest x-ray and pulmonary function testing conducted by a NIOSH certified pulmonary function technician. The x-ray shall be interpreted by a NIOSH certified B reader.

(d) The work history, physical examination and pulmonary function test shall be repeated annually for employees who have been and are currently exposed to the exposure levels in (a) above.

(e) The posterior-anterior chest x-ray shall be repeated every five years, for the first 15 years of exposure as defined in (a) above, then every two years until 20 years of exposure. After 20 years of exposure, chest x-rays shall be taken annually.

(f) Employees identified with parenchymal asbestosis shall receive a medical evaluation and consultation to determine the advisability of their continued exposure to asbestos. If based on this medical determination, an employee is advised to discontinue work which involves direct exposure to asbestos, such employee shall be reassigned to another job or given the opportunity to be reassigned to a position whose duties the employee is able to perform with the same employer, in the same geographical area and with the same seniority, status, and rate of pay of the prior position.

#### 12:100-12.15 Recordkeeping

Retention of and employee access to medical and monitoring data shall be in accordance with 29 CFR 1910.20.

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### SUBCHAPTERS 13 THROUGH 16. (RESERVED)

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### SUBCHAPTER 17. STANDARDS AND PUBLICATIONS REFERRED TO IN THIS CHAPTER

#### 12:100-17.1 Documents referred to by reference

(a) The full title and edition of each of the standards or publications referred to in this chapter are as follows:

1. ANSI Z9.2—1979, Design and Operation of Local Exhaust Systems;
2. ANSI Z88.5—1981, Respiratory Protection for the Fire Service;
3. ANSI Z88.6—1984, Respiratory Protection—Respiratory Use—Physical Qualifications for Personnel;
4. Asbestos Policy Committee Report to the Governor, March, 1985;
5. 29 CFR Part 1910, General Industry Standards;
6. 29 CFR Part 1926, Construction Industry Standards;
7. 29 CFR Part 1926, Agriculture;
8. 30 CFR Part 11, Respirators;
9. NIOSH Method 7400, Microscopy Measurement of Asbestos Fiber, February 15, 1984;
10. ANSI/CGA G7.1—1989, Commodity Specification for Air;
11. CGA P15—1985, Filling of Industrial and Medical Nonflammable Compressed Gas Cylinders;
12. NFPA No. 1971—1986, Protective Clothing for Structural Firefighting;
13. NFPA No. 1972—1987, Structural Firefighters Helmets;
14. NFPA No. 1973—1988, Gloves for Structural Firefighters;
15. NFPA No. 1974—1987, Standard on Protective Footwear for Structural Firefighting;
16. NFPA No. 1975—1985, Station/Work Uniforms for Firefighting;
17. NFPA No. 1981—1986, Self-contained Breathing Apparatus for Firefighters;
18. NFPA No. 1982—1988, Personal Alert Safety System for Firefighters (PASS);
19. NFPA No. 1983—1985, Fire Service Life—Safety Rope, Harnesses, and Hardware;
20. NFPA No. 1901—1991, Pumper Fire Apparatus;
21. NFPA No. 1902—1991, Initial Fire Apparatus;
22. NFPA No. 1903—1991, Mobile Water Supply Fire Apparatus;
23. NFPA No. 1904—1991, Aerial Ladder and Elevating Platform Apparatus;
24. N.J.A.C. 5:23, Uniform Construction Code;
25. N.J.A.C. 7:26, Solid Waste Regulations;
26. N.J.A.C. 12:120, Asbestos Licenses and Permits;
27. N.J.S.A. 34:6A-25 et seq., New Jersey Public Employees Occupational Safety and Health Act; and
28. N.J.S.A. 34:13A-1 et seq., Employer—Employee Relations Act.

Amended by R.1993 d.28, effective January 4, 1993.

See: 24 N.J.R. 73(a), 25 N.J.R. 180(b).

Revised (a)2; added new (a)3; redesignated existing (a)3-8 as (a)4-9; added new (a)10-23; redesignated existing (a)9-13 as (a)24-28.

Amended by R.1994 d.492, effective September 19, 1994.

See: 26 N.J.R. 2776(a), 26 N.J.R. 3872(b).

**12:100-17.2 Availability of documents for inspection**

A copy of each of the standards and publications referred to in this chapter is on file and may be inspected at the following Office of the Division of Workplace Standards between the hours of 9:00 A.M. and 4:00 P.M. on normal working days:

New Jersey Department of Labor  
Division of Workplace Standards  
36 West State Street, Room 313  
Trenton, New Jersey

**12:100-17.3 Availability of documents from issuing organization**

Copies of the standards and publications referred to in this chapter may be obtained from the organizations listed below. The abbreviations preceding these standards and publications have the following meaning, and are the organizations issuing the standards and publications listed in N.J.A.C. 12:100-17.1.

ANSI American National Standards Institute  
1430 Broadway  
New York, New York 10018

CFR Code of Federal Regulations  
Copies available from:

Superintendent of Documents  
Government Printing Office  
Washington, D.C. 20402

CGA Compressed Gas Association Inc.  
1235 Jefferson Davis Highway, Suite 509  
Arlington, VA 22202

NFPA National Fire Protection Association  
Batterymarch Park  
Quincy, MA 02269

NIOSH National Institute of Occupational Safety and Health  
Division of Technical Services  
Cincinnati, Ohio 45226

NJAC New Jersey Administrative Code  
Copies available from:  
Office of Public Employee Safety  
N.J. Department of Labor  
CN 386  
Trenton, NJ 08625-0386

NJSA New Jersey Statutes Annotated  
Copies available from:  
Division of Workplace Standards  
New Jersey Department of Labor  
CN 054  
Trenton, NJ 08625-0054

Amended by R.1993 d.28, effective January 4, 1993.  
See: 24 N.J.R. 73(a), 25 N.J.R. 180(b).  
Added "CGA" and "NFPA".